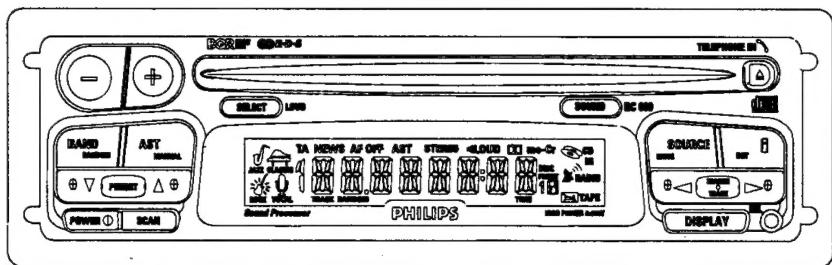


# Service

# Service

# Service



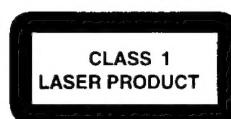
For repair information of the CD-player see Service Manual of the CDM-M2 mechanism

# Service Manual

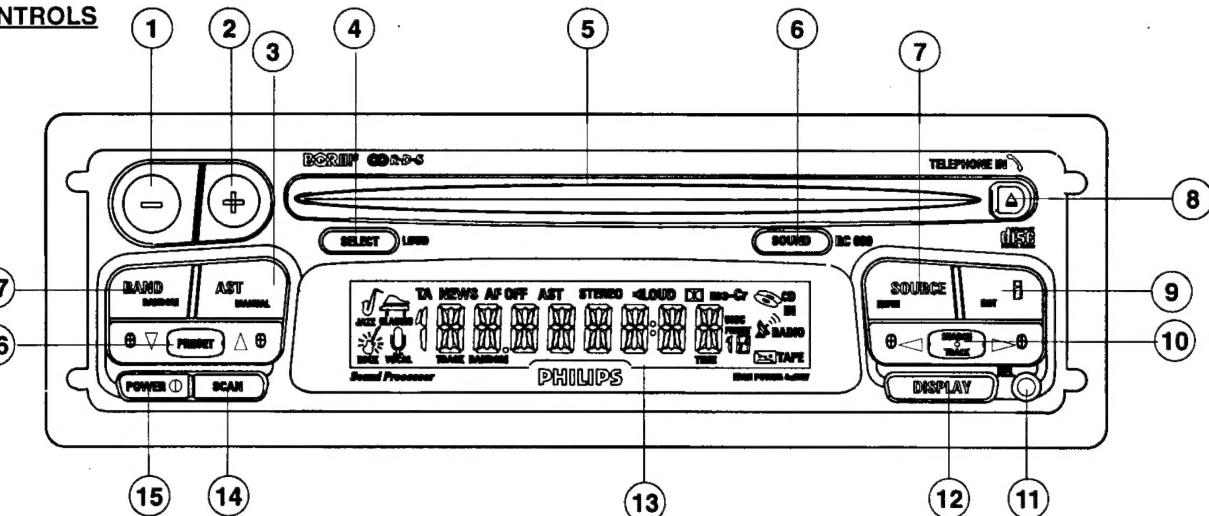
12 V

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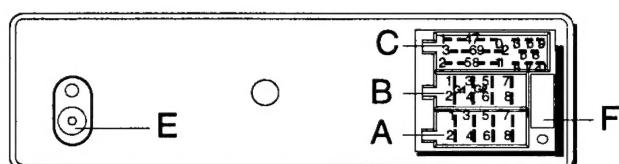


## CONTROLS



- |  |                     |
|--|---------------------|
| 1 VOL-                                 | 13 DISPLAY          |
| 2 VOL+                                 | 14 SCAN             |
| 3 AUTOSTORE / MANUAL                   | 15 ON / OFF         |
| 4 AUDIO SELECTION / LOUDNESS           | 16 PRESET SELECTION |
| 5 CD OPENING                           | 17 BAND / RANDOM    |
| 6 SOUND                                |                     |
| 7 SOURCE SELECTION / MUTE              |                     |
| 8 EJECT DISK                           |                     |
| 9 TRAFFIC INFORMATION NEWS / INIT MODE |                     |
| 10 SEARCH / TRACK                      |                     |
| 11 RELEASE BUTTON FOR DETACH UNIT      |                     |
| 12 FREQUENCY / PTY                     |                     |

## CONNECTIONS

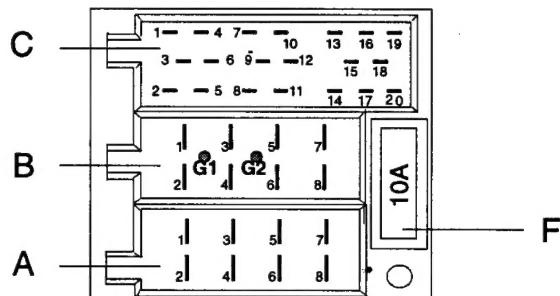


- |                                   |                  |
|-----------------------------------|------------------|
| A1 Phone Mute                     | B1 Rear Right +  |
| A2 Remote Ground                  | B2 Rear Right -  |
| A3 Remote Input                   | B3 Front Right + |
| A4 +12V Permanent                 | B4 Front Right - |
| A5 +12V Switched (antenna supply) | B5 Front Left +  |
| A6                                | B6 Front Left -  |
| A7 +12V Ignition Key or Permanent | B7 Rear Left +   |
| A8 Ground                         | B8 Rear Left -   |

- G1 Gateway  
G2 Gateway

E Aerial Plug

F Fuse 10A



- |                  |            |
|------------------|------------|
| C1 Line out RL   |            |
| C2 Line out RR   |            |
| C3 Line out GND  |            |
| C4 Line out FL   | RC669 only |
| C5 Line out FR   | RC669 only |
| C6 +12V SWITCHED |            |

C18 Input reference  
C19 Input telephone RC669 only  
C20 Input telephone

## TECHNICAL DATA

### **GENERAL**

Power supply :14.4V DC  
Dimensions :180x150x51.8 mm

### **CD**

CD mechanism :CDM-M2  
Crosstalk at 1KHz :60 dB  
16-20KHz :50 dB

### **RADIO**

LW : 144-288 KHz  
MW : 531-1629 KHz  
FM : 87.5-108 MHz  
IF-AM : 450 KHz / 10.7 MHz  
IF-FM : 10.7 MHz / 72.2 MHz  
Sensitivity 26dB S/N : 26 µV (LW)  
: 18 µV (MW)  
: 3,4 µV (FM)  
Limitation α-3dB : 4 to 12 µV

### **AMPLIFIER**

Output power :4x18W / 4Ω (THD = 10%)  
Loudness :+7dB ± 3dB at 60Hz  
Treeble control :+0dB ± 3dB at 10kHz  
Bass control :12 ± 3dB at 10kHz  
Balance control :10 ± 3dB at 60Hz  
Fader :50 +0-20dB  
4X line out :50 +0-20dB  
2X line out RC669 only  
Line in mono RC634 - 639  
RC669 only

## **ESD**



### **WARNING**

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

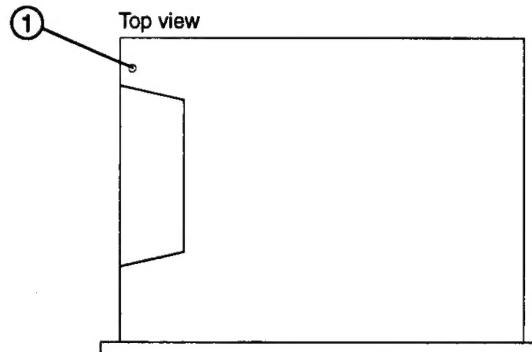
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

### ESD equipment available:

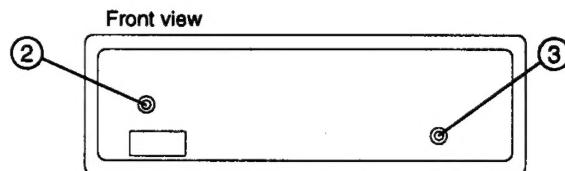
Anti-static table mat large 1200X650X1.25mm	4822 466 10953
small 600X650X1.25mm	4822 466 10958
Connection box (1Mohm)	4822 395 10223
Extendible cable (to connect wrist band to connection box)	4822 320 11307
Connecting cable (to connect table mat to connection box)	4822 320 11305
Earth cable (to connect any product to mat or box)	4822 320 11308
Complete kit ESD3 (combining all above products)	4822 310 10671
wristband tester	4822 344 13999

22RC634/00-22RC639/00  
22RC639/17-22RC669/00

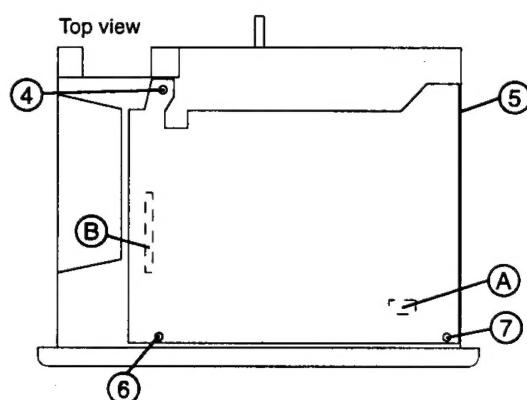
## REMOVING THE PWB



Remove the cover top (screw 1 ) and the cover bottom



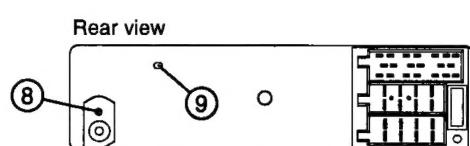
Remove the fixed front (screws 2 and 3)



Remove the deck (screws 4,5,6 and 7 )

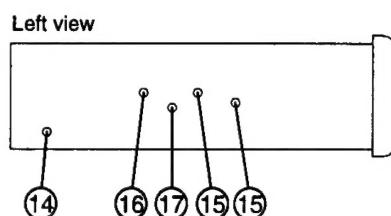
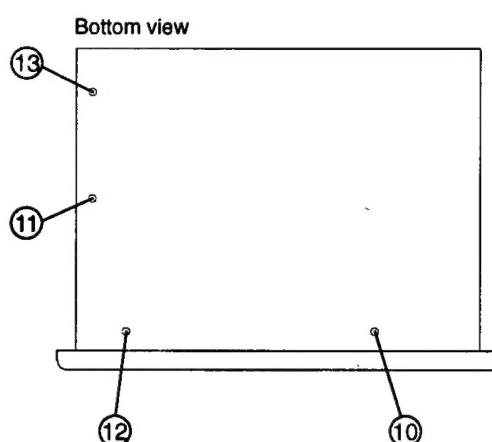
Disconnect the A connector

Disconnect the B connector



Remove the antenna plug bracket (screws 8 )

Remove the main PWB (screws 9 to 17)



## INIT MODE:

Entering the Init Mode:

Switch ON the set. Press the **i** key for at least 2 seconds, until you hear a beep.

The display shows "INIT".

Press the **◀** or **▶** key one or more times until the option you want to modify is displayed.

Briefly press the **i** key one or more times to adjust the choice.

- The choice shown on the display will be memorized by the set when you select another option or leave the "INIT" mode.

Press the **i** key for at least 2 seconds to leave the "INIT" mode.

Note: the set automatically leaves the "INIT" mode about 1 minute after your last operation.

List of "INIT" options: (Initial factory settings shown in **bold**).

Option <b>◀</b> or <b>▶</b>	Choice <b>i</b>	Usage
COLOUR	Green or Orange	Select the lighting colour of the LCD display.
VIEW	-1 , 0 , +1	Adjustment of the viewing angle of the set's LCD display.
SRC	CDC or AUX	Change source option between a CD Changer and Auxiliary. If CDC is connected, changing source to AUX is not allowed and it will generate an error bleep if user tries to do so. CDC has higher priority than AUX. If setting is in AUX, and a CDC is connected, the set will switch set the source type to CDC.
REMOTE	NO or YES	Disable or enable the PHILIPS remote-control.
PHONE	NO or LOW or HIGH	Enable or Disable the Telephone Mute switch. High corresponds to triggering from 0 to 5v, Low corresponds to a trigger from 5v to 0v on A1 connector Pin.
SRCH	DX or LO	Select the search level for FM band.
AF	ON or OFF	Set the AF mode for each preset. When user select AF OFF, the AF OFF flag will not be switch ON until user exit the INIT mode.
RADIO	EUROPE or AMERICA	Select the band range for Europe or America or Asia. When in America, LW is suppressed and MW is called AM. When in America, AM is 10 kHz and no RBDS.
MW	ON or OFF	Enable or Disable the Medium Wave bands.
LW	ON or OFF	Enable or Disable the long Wave band, only possible to toggle in Tuner EUROPE.

## TEST MODES:

### 2) KEYBOARD TEST

This test is called by switching the set On while keeping pressed the **i** key. The display shows: T - -

Then press each key at least one time. A different number will appear each time you press a new key (e.g. T 01), according to the table below:

Vol -	Vol +	<b>▲</b>	SEL	Sound	BND	AST	SRC	<b>i</b>	<b>▼</b>	<b>▲</b>	<b>◀</b>	<b>▶</b>	SCAN	DISP
T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11	T12	T13	T14	T15

When all the keys are pressed, if all is correct, the display shows all segments lit.

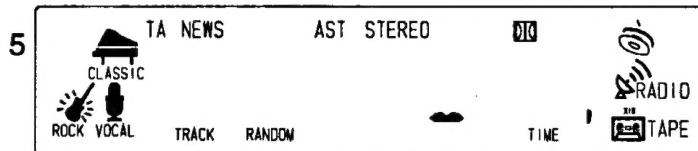
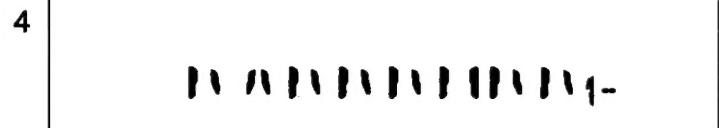
This test can be exited at any moment by switching Off the set.

### 1) DISPLAY TEST

At the end of the keyboard test, when all the segments are displayed, press **i** key.

The display shows in sequence, each time you press **i** key, 5 different screens as follows:





The last screen shows all segments lit.  
To quit this mode, switch Off the set.

### 3) FIELD TEST

This test is called by pressing simultaneously ▲ and DISPLAY keys (set On).

The display shows:

4 digits indicating the tuned frequency

5th digit: Selected frequency quality

6th digit: Best AF quality

7th digit: Multipath 0..F (0 = no multipath)

8th digit: Field level 0..F (F = best fieldstrength)

This test can be exited by switching Off the set or by pressing again presets keys 2 and 5 at the same time.

### 4) SOFT VERSION AND CHECK SUM INDICATION

This test is called by pressing simultaneously SCAN and DISPLAY keys (set On)

The display shows two screens during 2 seconds each.

The first screen shows the last four number of the soft version.

The second screen shows the check sum.

### DEMO MODE:

This mode is called by switching the set On while keeping pressed the DISPLAY Key.

The set displays in sequence all its features.

To exit this mode, switch the set OFF and follow the same procedure as for calling this mode (DISPLAY Key + set On).

## CHECKS AND ALIGNMENTS

No alignment is needed for radio part. IC96 tuner is pre-aligned.
---

For all measurement, please refer to "General Check & Alignment procedures for Car Systems" 4822 725 25456, unless otherwise stated.

### Checks:

- Supply voltages (set Off)

SET OFF	Voltage	Current + Acc ON	V reset Pin 4 $\mu$ P	Vdd Pin 40 $\mu$ P	V hold Pin 8 $\mu$ P	Current + Acc OFF
Acc supply	+14.4V	< 3mA	min Vdd x 0.7	min 4.5V max 5.5V	max Vdd x 0.3	< 2mA

- Supply voltages (set On)

V reset pin 4 $\mu$ P	V pin 40 $\mu$ P	V hold pin 8 $\mu$ P	V 5V E 7417	V 8.5V E 7418	V EEPROM pin 8
max Vdd x 0.7	min 4.5V max 5.5V	min Vdd x 0.7	min 4.7V max 5.4V	min 8.0V max 8.9V	min 4.5V max 5.5V

- Reference oscillator frequencies

device	$\mu$ P 7500	SAA6579 7260	MSM6307 7600 (RC659 only)
pin	3	13	25
frequency	8 MHz 0.5%	4.332 MHz 20ppm	6 MHz 0.5%

- Line out (RC659 and RC629 only)

Conditions: 98MHz, fm = 1KHz,  $\Delta f$  = 11.25KHz, lines outputs loaded with 10k resistors.

Output = 500 mV  $\pm$  2dB at volume max.

### CD part

Audio Signal Disk 1 4822 397 30184	Crosstalk : Disk 1 track 67 to 71	limit : < -60dB	nominal :< -30dB
---------------------------------------	-----------------------------------	-----------------	------------------

Test CD	Test	Result
Eccent-music 150um 4822 397 30279	Insert disk and play track 01	No failure
Vertical deviation 4822 397 30282	Check loading, display of number of tracks and total time. Select track no 9 time 00.20 listen to the disk during 4 seconds	no electrical nor mechanical noise

### FM part

- Demodulated FM levels

Input	Output of IC96 ( pin 15 & 16 )
98 MHz	300 mV $\pm$ 50 mV

- Limiting point  $\alpha$ -3dB

Range	Input	min	nominal	max
87.5 to 108 MHz	1Khz	4 $\mu$ V	7 $\mu$ V	12 $\mu$ V

- Check of search levels

Search levels	Input	Dx: 7 $\mu$ V < X < 23 $\mu$ V
	98 MHz	Local : 120 $\mu$ V < X < 360 $\mu$ V

- Pause detector

f = 94MHz fm = 1KHz	$\Delta f = 0.6\text{KHz}$	Pin 6 of 7230 < 0.8V
	$\Delta f = 3.5\text{KHz}$	Pin 6 of 7230 > 2.0V

AM part

- Usable sensitivity 26dB S/N

Sensitivity at 26dB S/N	207 KHz	m = 30%	1KHz	< 38 $\mu$ V	typ 28
	1053 KHz			< 30 $\mu$ V	typ 22

- Check of search levels

Conditions: start with set in FM DX mode, change to AM = 1053KHz

Search levels	Input	low : 35 $\mu$ V < X < 140 $\mu$ V high : 7 $\mu$ V < X < 28 $\mu$ V
	1053KHz	

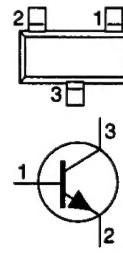
## INTEGRATED CIRCUITS

### SAA6579T Radio Data System demodulator

SYMBOL	PIN	DESCRIPTION
QUAL	1	quality indication output
RDDA	2	RDS data output
$V_{ref}$	3	reference voltage output (0.5 $V_{DDA}$ )
MPX	4	multiplex input signal
$V_{DDA}$	5	+5V supply voltage for analog part
$V_{SSA}$	6	ground for analog part (0V)
CIN	7	subcarrier input to comparator
SCOUT	8	subcarrier output for reconstruction filter
TCTR	9	test control
TEN	10	test enable
$V_{SSD}$	11	ground for digital part (0V)
$V_{DDD}$	12	+5V supply voltage for digital part
OSCI	13	oscillator input
OSCO	14	oscillator output
T57	15	57kHz clock signal output
RDCL	16	RDS clock output



BC847B

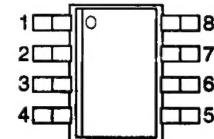


BD438



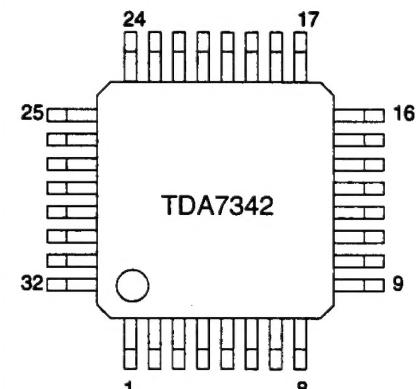
### MC4558 Dual op amp

PIN	DESCRIPTION
1	Output 1
2	Inverting input 1
3	Non inverting input 1
4	$V_{cc}$ -
5	Non inverting input 2
6	Inverting input 2
7	Output 2
8	$V_{cc}$ +



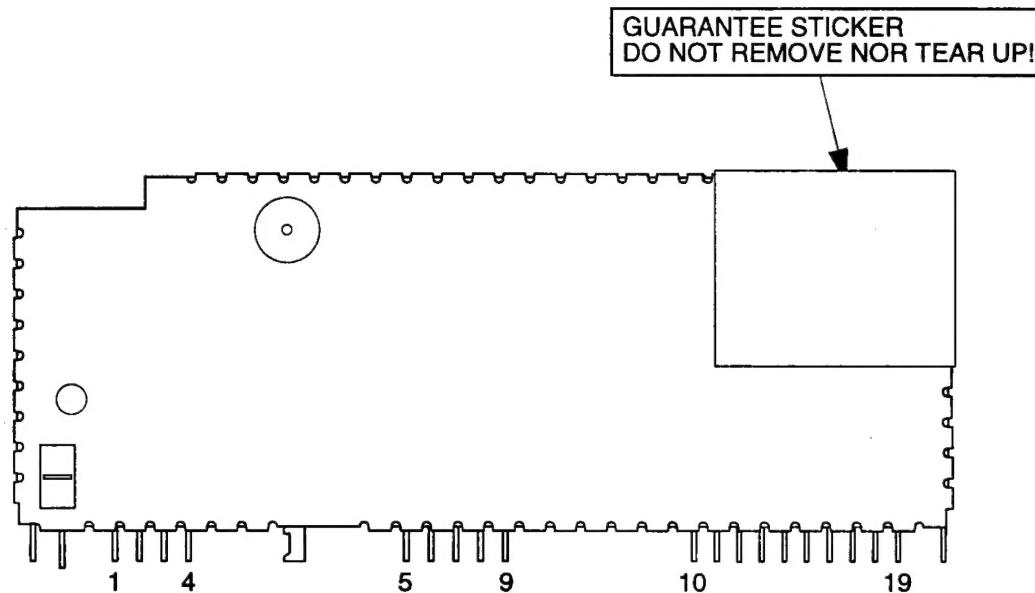
### TDA7342 Digitally controlled audio processor

SYMBOL	PIN	DESCRIPTION	SYMBOL	PIN	DESCRIPTION
TR R	1	Treble control capacitor right	BIN L	17	Bass control input left
IN R	2	Input right	BOUT L	18	Bass control output left
OUT R	3	Output right	BIN R	19	Bass control input right
LOUD R	4	Input loudness, right control part	BOUT R	20	Bass control output right
IN R3	5	Input 3 right source (CD)	SM	21	Soft mute control
IN R2	6	Input 2 right source	OUT RR	22	Output rear right
IN R1	7	Input 1 right source	OUT LR	23	Output left right
MONO	8	Input mono source	OUT RF	24	Output right front
LOUD L	9	Input loudness, left control part	OUT LF	25	Output left front
CD GND	10	Ground input CD	DIG GND	26	Bus ground
IN L3	11	Input 3 left source (CD)	SDA		I2C Data
IN L2	12	Input 2 left source	SCL	28	I2C Clock
IN L1	13	Input 1 left source	CREF	29	Supply reference capacitor
CSM	14	Soft mute control capacitor	Vs	30	Supply voltage
IN L	15	Input right	GND	31	Ground
OUT L	16	Output left	TRL	32	Treble control capacitor left



## IC96 MODULE

Not repairable module. Do not open and do not try to repair yourself!



### Connections

2	Ground	10	Multiplex / RDS output signal
5	Inlock detector pin	11	Level
6	Vcc 8.5V	12	I <sup>2</sup> C SDA
7	Ground	13	I <sup>2</sup> C SCL
8	Vcc 5.0V	15	tuner output L
		16	tuner output R
		17	Ground

### Quick reference data:

#### 1) AM part

- Longwave/Mediumwave 144-1710 KHz (inclusive USA)
- Shortwave 5850-6250 KHz - 49 meter band
- AM double super concept
- AM IF1 10.7MHz
- AM IF2 450KHz
- First VCO frequency above input signal frequency
- Second X-tal oscillator frequency below IF1
- Usable sensivity  $\alpha$ 26dB MW =  $14\mu\text{V}$  typ.

#### 1) FM part

- FM 87.5 - 108MHz
- FM double super concept
- FM IF1 72.2MHz
- FM IF2 10.7MHz
- First VCO frequency above input signal frequency
- Second X-tal oscillator frequency below IF1
- Usable sensivity  $\alpha$ 26dB =  $2.5\mu\text{V}$  typ.
- THD 1mV  $\delta f=75\text{KHz}$  = 0.5% typ
- Signal to noise ratio = 65dB typ
- Locktime synthetizer <2mSec

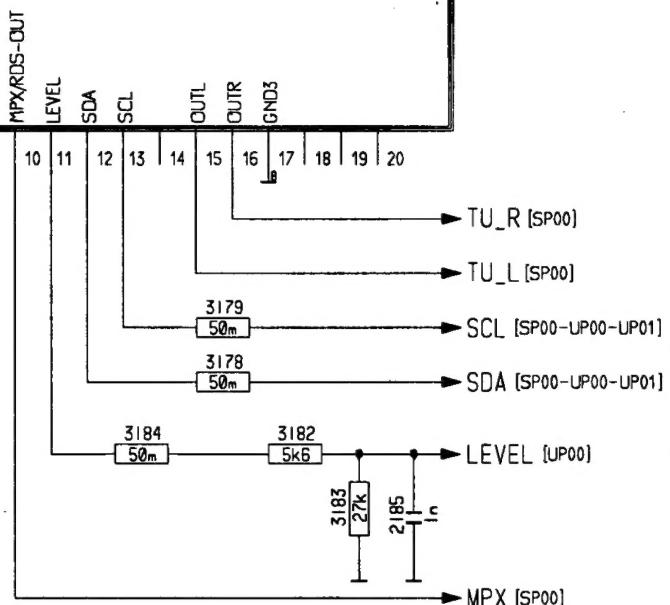
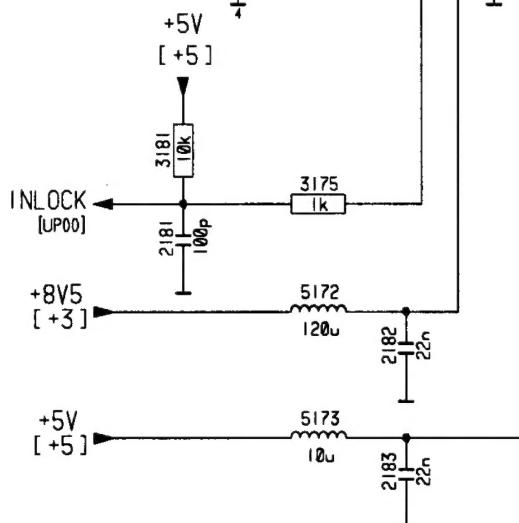
# TUNER PART

[TU00]

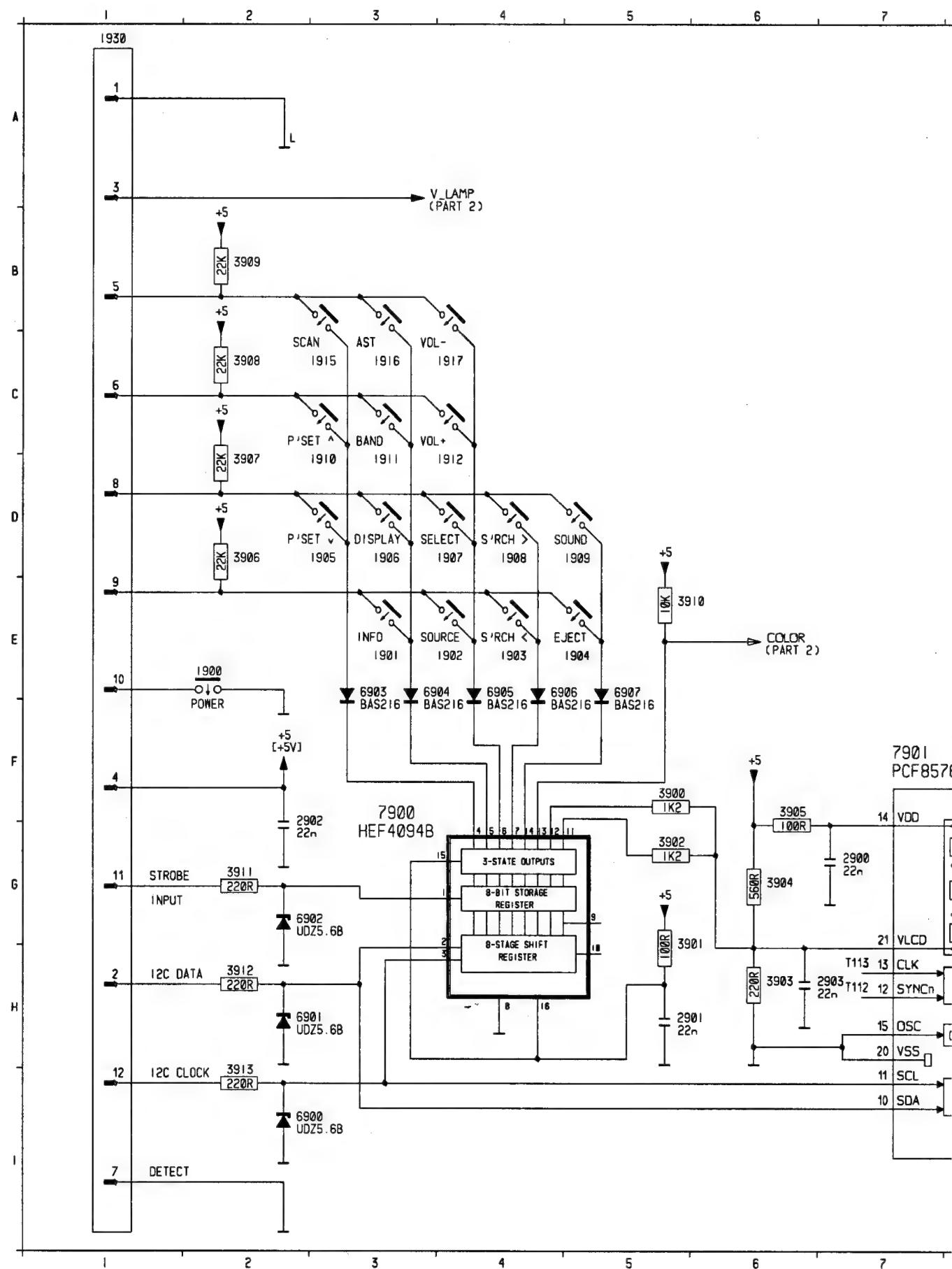
1170      8SV

AM/FM\_ANT2  
AM/FM\_ANT1  
GND1  
ANT\_SEL1  
ANT\_SEL2

LOCK      +UB1      GND2      +UB2      VREF



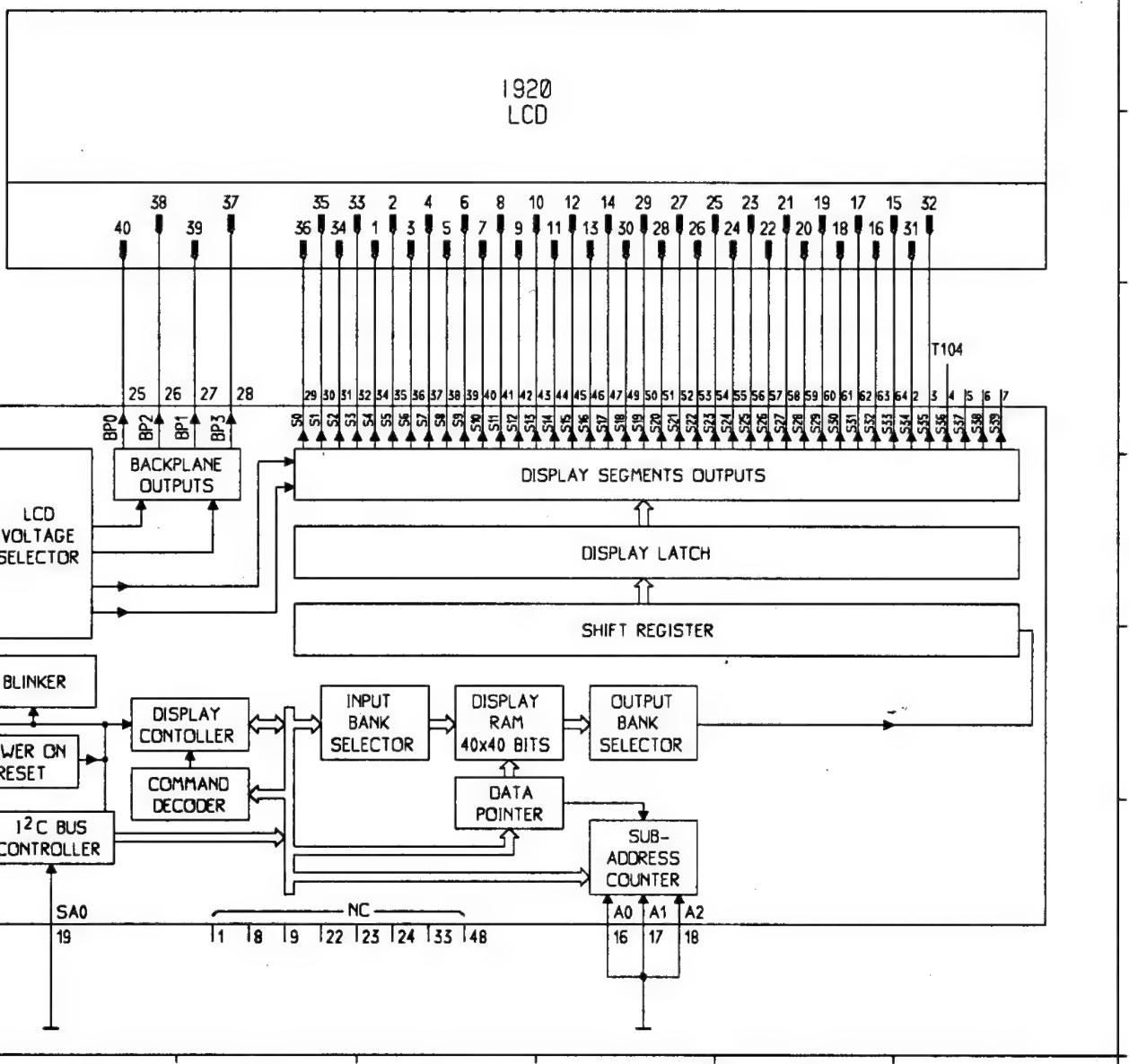
22RC634/00 - 22RC639/00  
22RC639/17 - 22RC669/00



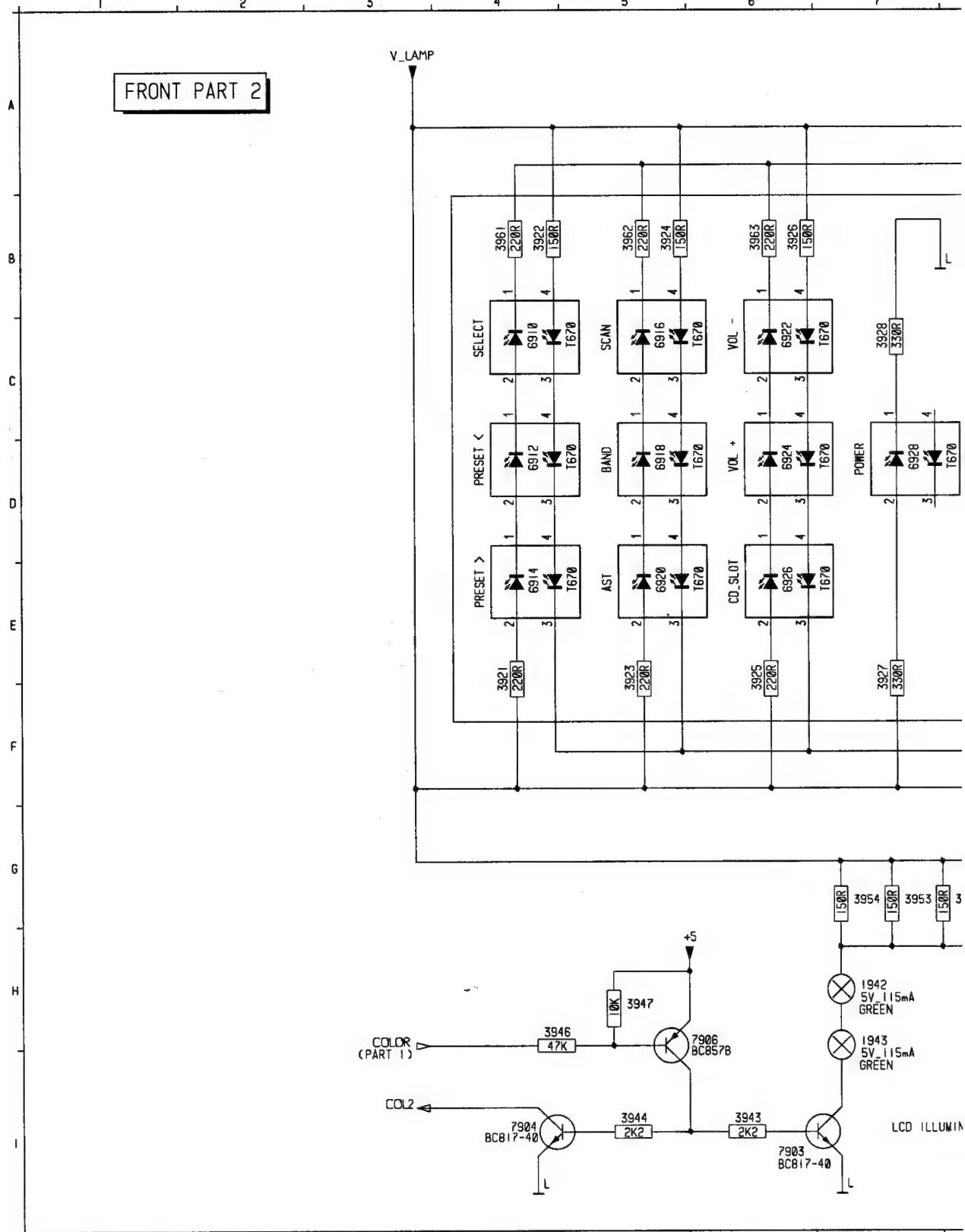
FRONT PART I

22RC634/00 - 22RC639/00  
22RC639/17 - 22RC669/00

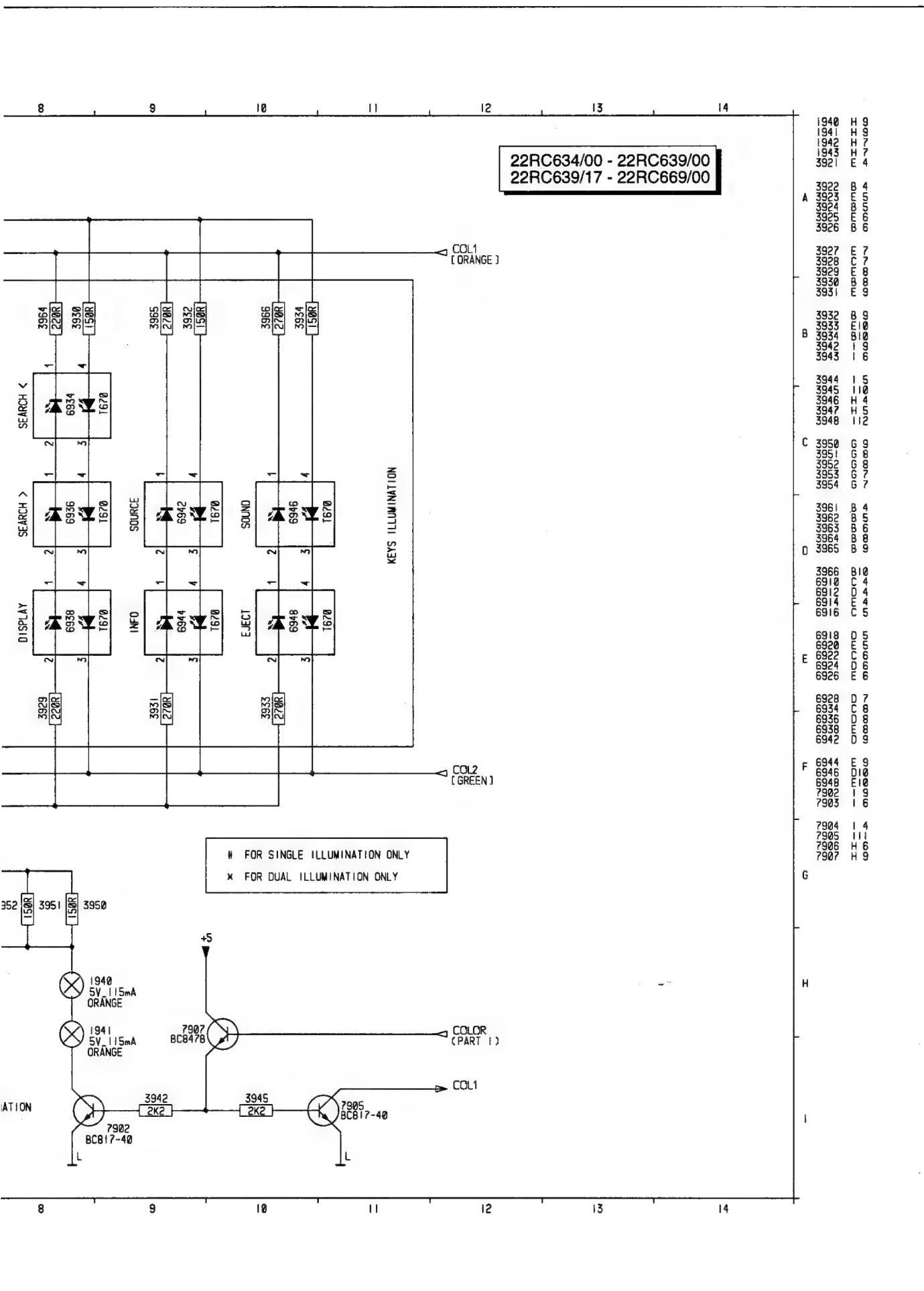
A	1905
	1906
	1907
	1908
	1909
	1910
	1911
	1912
	1915
	1916
B	1917
	1920
	1930
	2900
	2901
	2902
	2903
	3900
	3901
	3902
C	3903
	3904
	3905
	3906
	3907
D	3908
	3909
	3910
	3911
	3912
E	3913
	6900
	6901
	6902
	6903
F	6904
	6905
	6906
	6907
	7900
G	7901



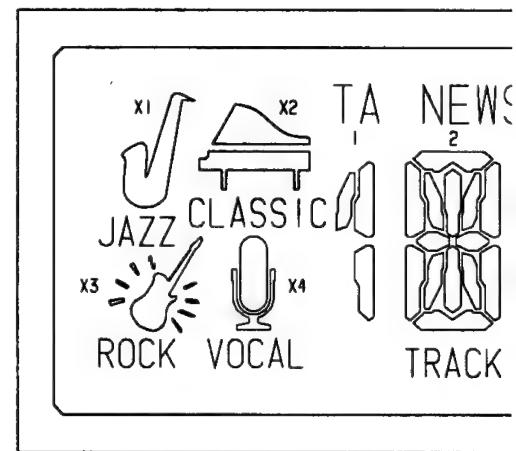
**FRONT PART 2**



PART 2 : FULL DETACHABLE FRONT

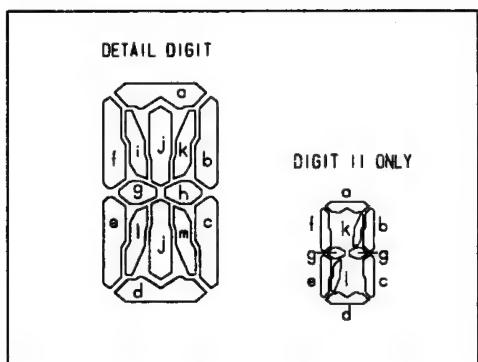
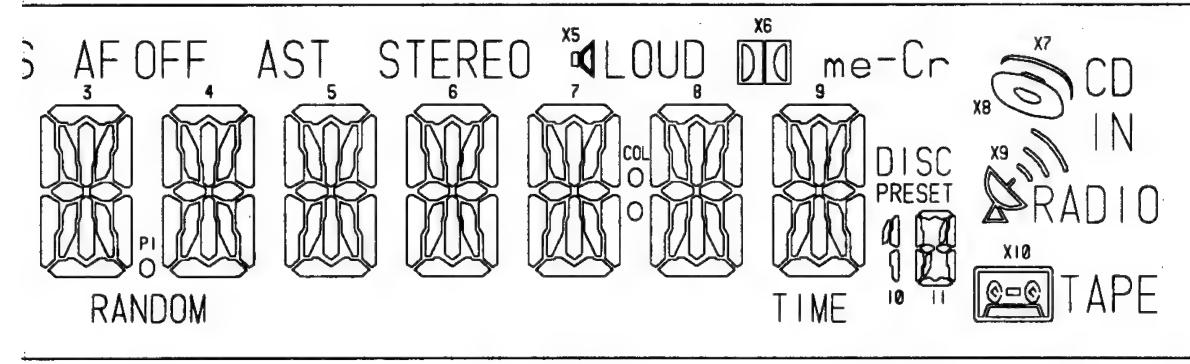


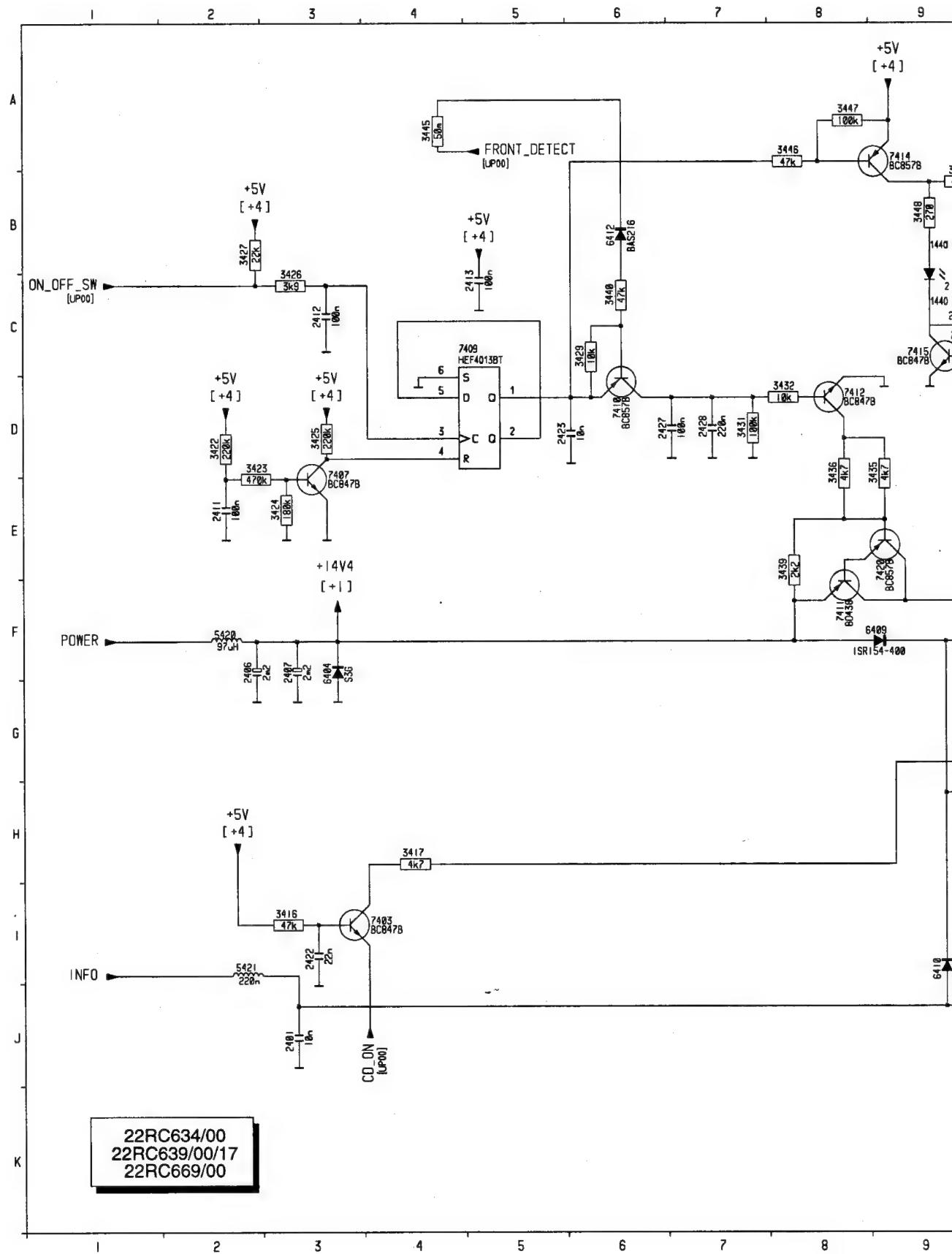
7901 DRIVER PINS	1920 LCD PINS	COM 1	COM 2	COM 3	COM 4
3	1	COM 1			
2	2		COM 2		
49	3			COM 3	
64	4				COM 4
50	5	2f	2g	2e	1 b c k
63	6	2i	2j	2l	TA
51	7	2a	2k	2m	2d
52	8	2b	2h	2c	TRACK
62	9	3f	3g	3e	NEWS
53	10	3i	3j	3l	AF OFF
60	11	3a	3k	3m	3d
54	12	3b	3h	3c	RANDOM
61	13	4f	4g	4e	PI
59	14	4i	4j	4l	AST
58	15	4a	4k	4m	4d
57	16	4b	4h	4c	CLASSIC, X2
56	17	5f	5g	5e	JAZZ, X1
55	18	5i	5j	5l	ROCK, X3
47	19	5a	5k	5m	5d
46	20	5b	5h	5c	VOCAL, X4
45	21	6f	6g	6e	11d
44	22	6i	6j	6l	TAPE, X10
43	23	6a	6k	6m	6d
42	24	6b	6h	6c	RADIO, X9
41	25	7f	7g	7e	IN
40	26	7i	7j	7l	STEREO
39	27	7a	7k	7m	7d
38	28	7b	7h	7c	
37	29			COL	
34	30	8f	8g	8e	LOUD, X5
35	31	8i	8j	8l	X6
36	32	8a	8k	8m	8d
32	33	8b	8h	8c	
31	34	9f	9g	9e	me-Cr
30	35	9i	9j	9l	~ X7
29	36	9a	9k	9m	9d
28	37	9b	9h	9c	TIME
27	38	DISC	PRESET	10 b c k	CD, X8
26	39	11g	11k	11f	11e
25	40	11c	11b	11a	11i

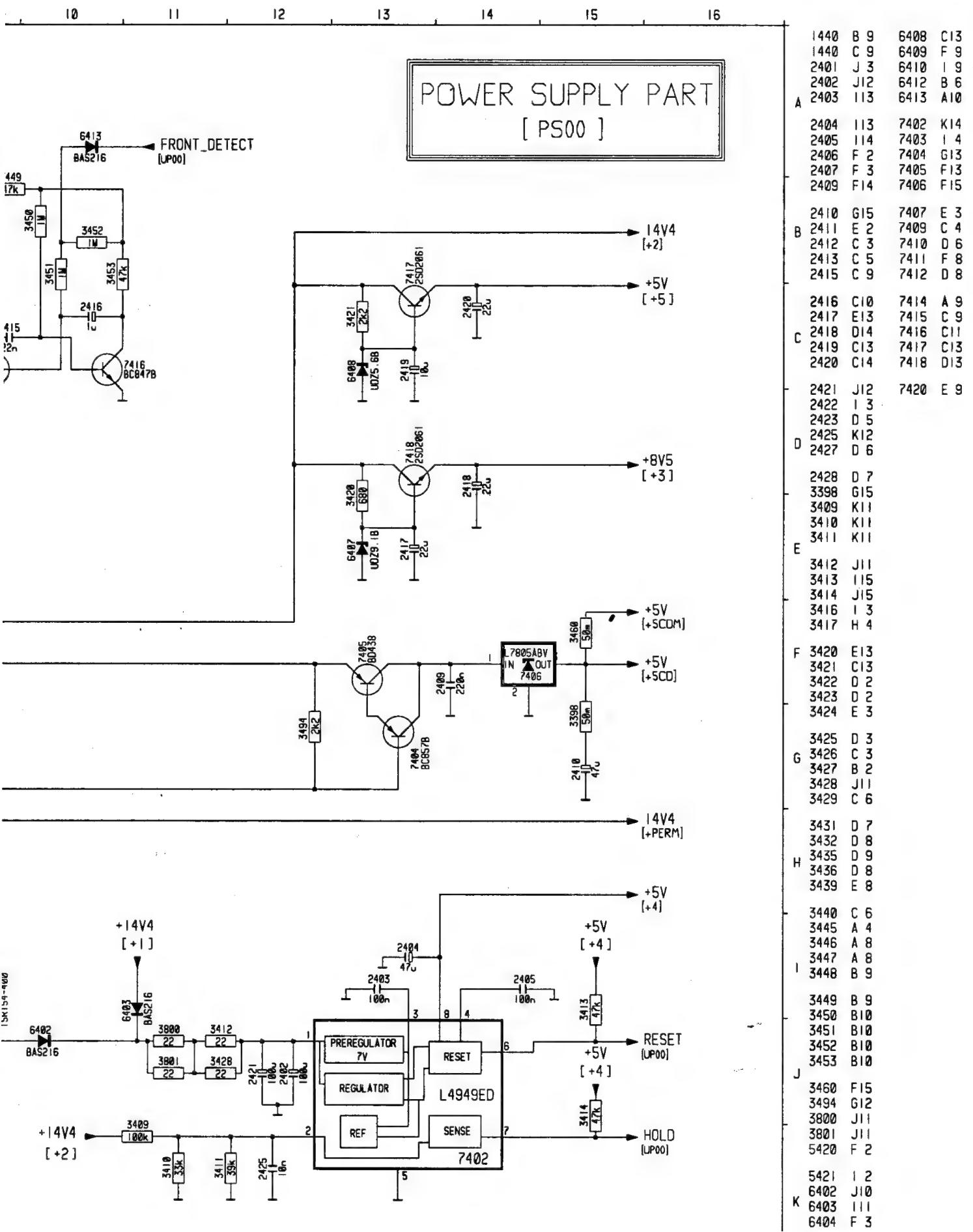


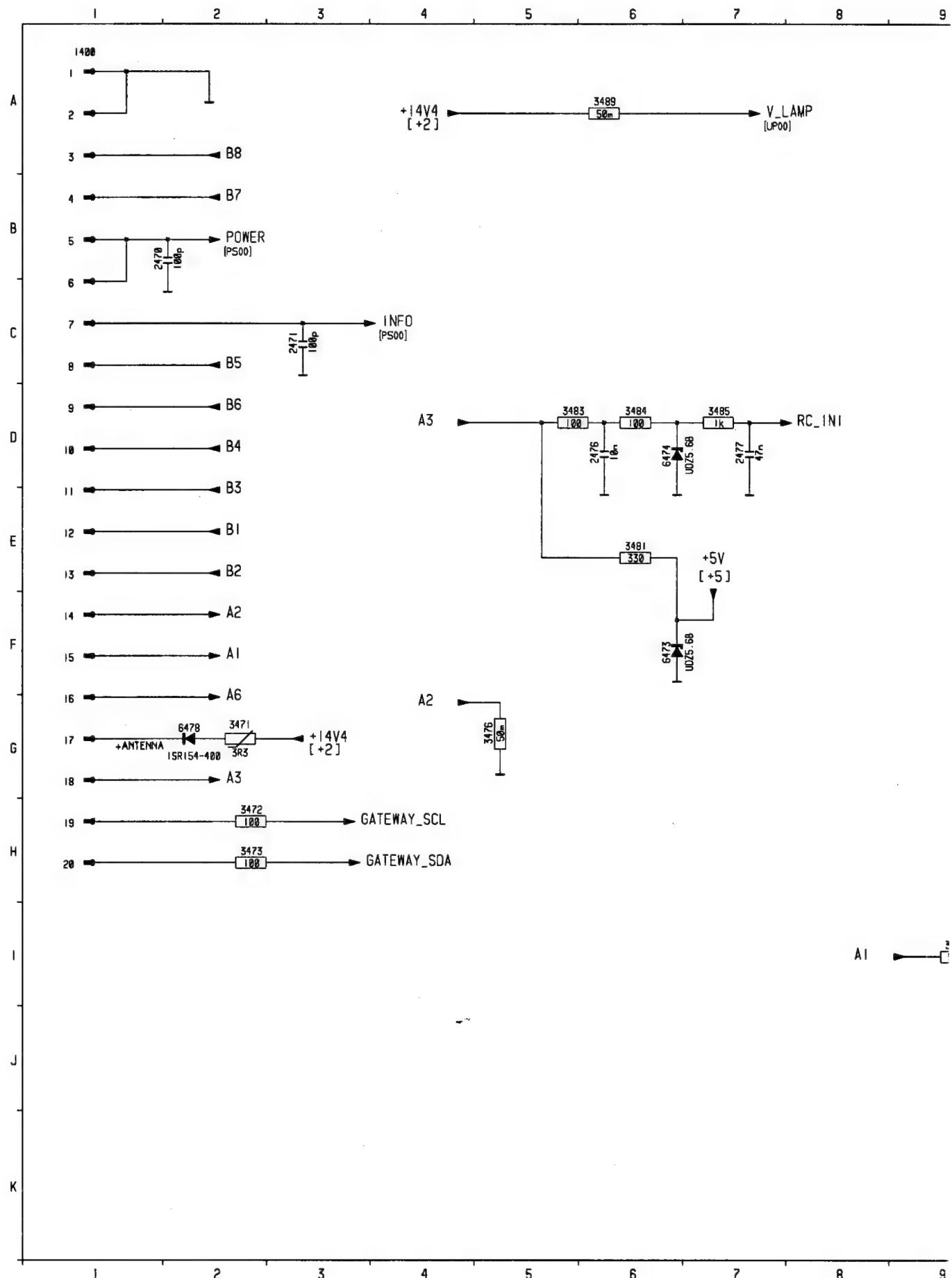
FRONT PART 3

22RC634/00 - 22RC639/00  
22RC639/17 - 22RC669/00









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16

**POWER SUPPLY PART**  
**[ PS01 ]**

22RC634/00  
 22RC639/00/17  
 22RC669/00

LOUT\_RR → 1 1401

LOUT\_RL → 2

LOUT\_FL → 3

LOUT\_FR → 4

LOUT\_FR → 5

→ 6

→ 7

→ 8

→ 9

→ 10

→ 11

→ 12

→ 13

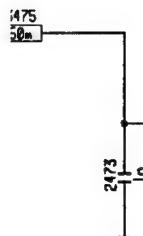
→ 14

→ 15

INREF ← 16

INL ← 17

INR ← 18



A 1400 A 1  
 1401 C 16  
 1401 D 16  
 2470 B 1  
 2471 C 3

A 2473 J 10  
 2476 D 6  
 2477 D 7  
 3471 G 2  
 3472 H 2

B 3473 H 2  
 3475 I 9  
 3476 G 5  
 3481 E 6  
 3483 D 5

C 3484 D 6  
 3485 D 7  
 3489 A 6  
 6473 F 6  
 6474 D 6  
 6478 G 2

D

E

F

G

H

I

J

K

10

11

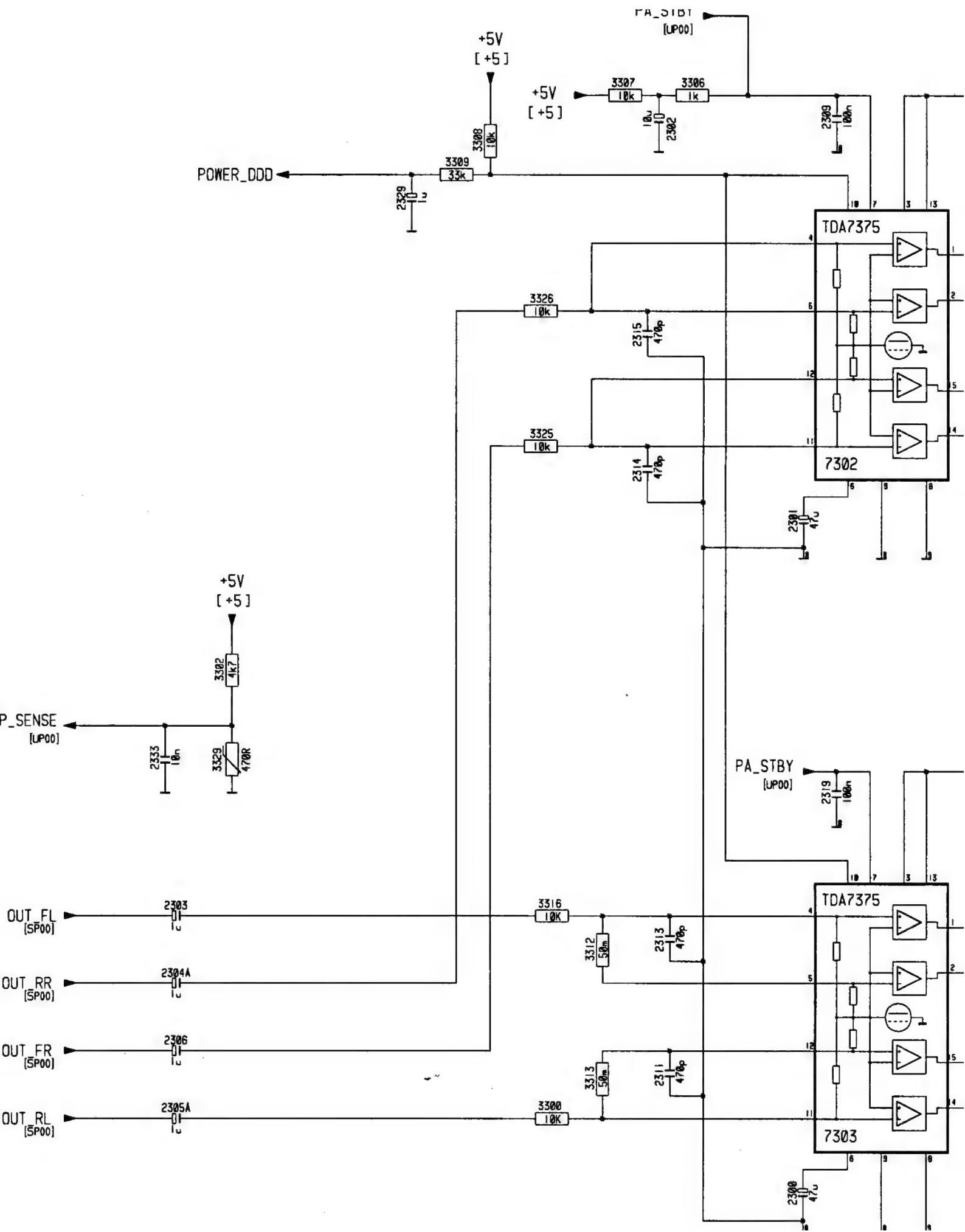
12

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16



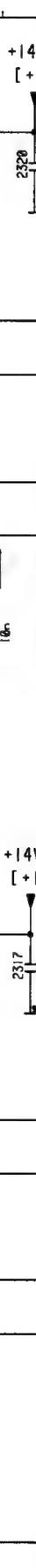
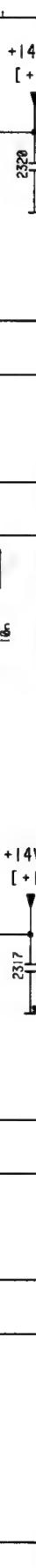
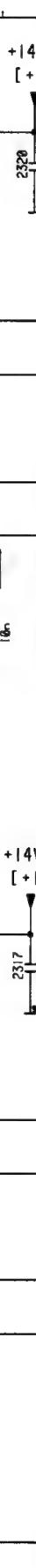
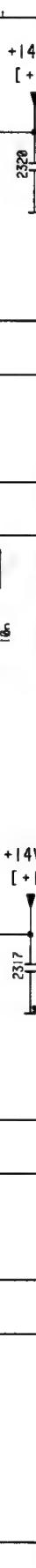


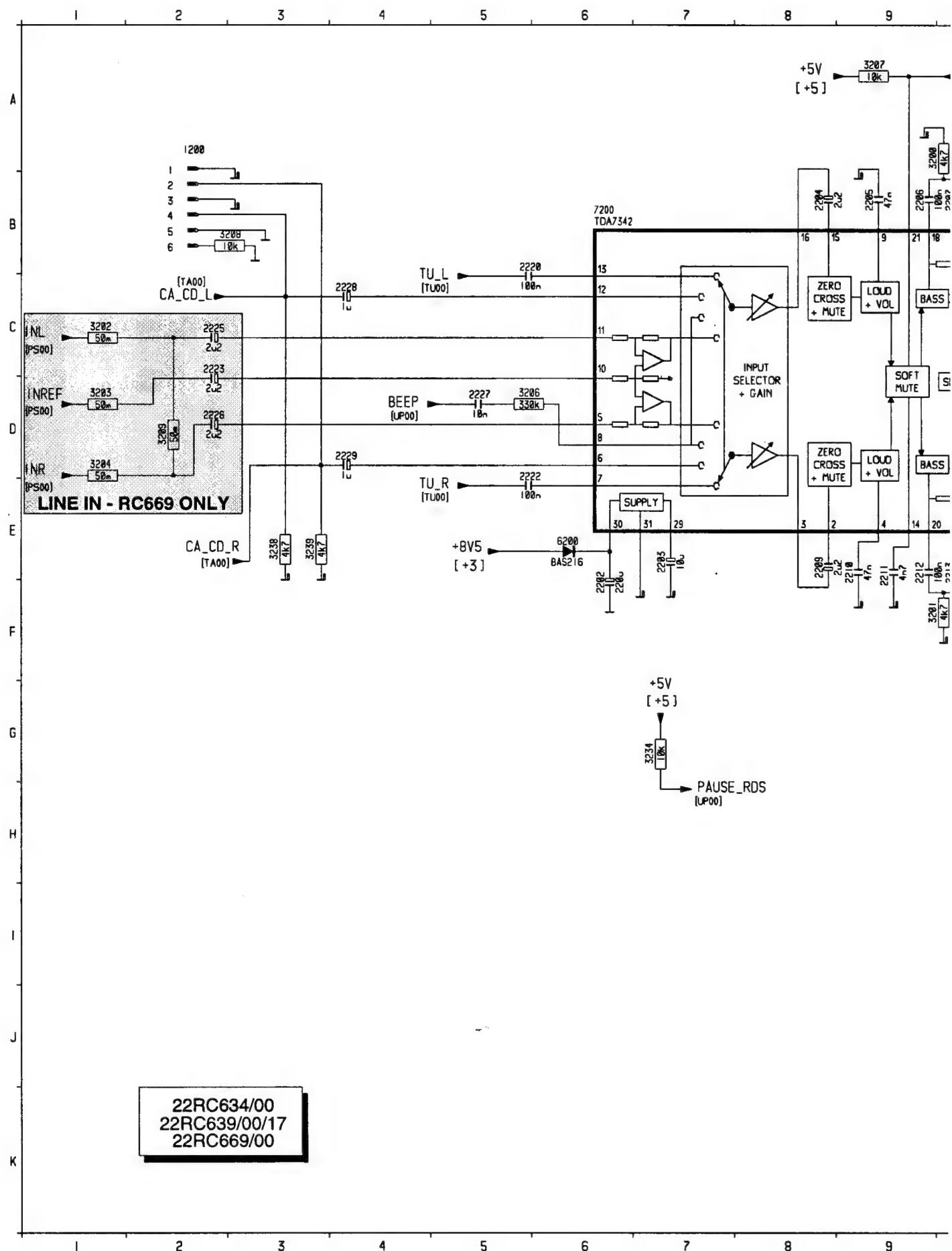
**POWER AMPLIFIER PART**  
[PA00]

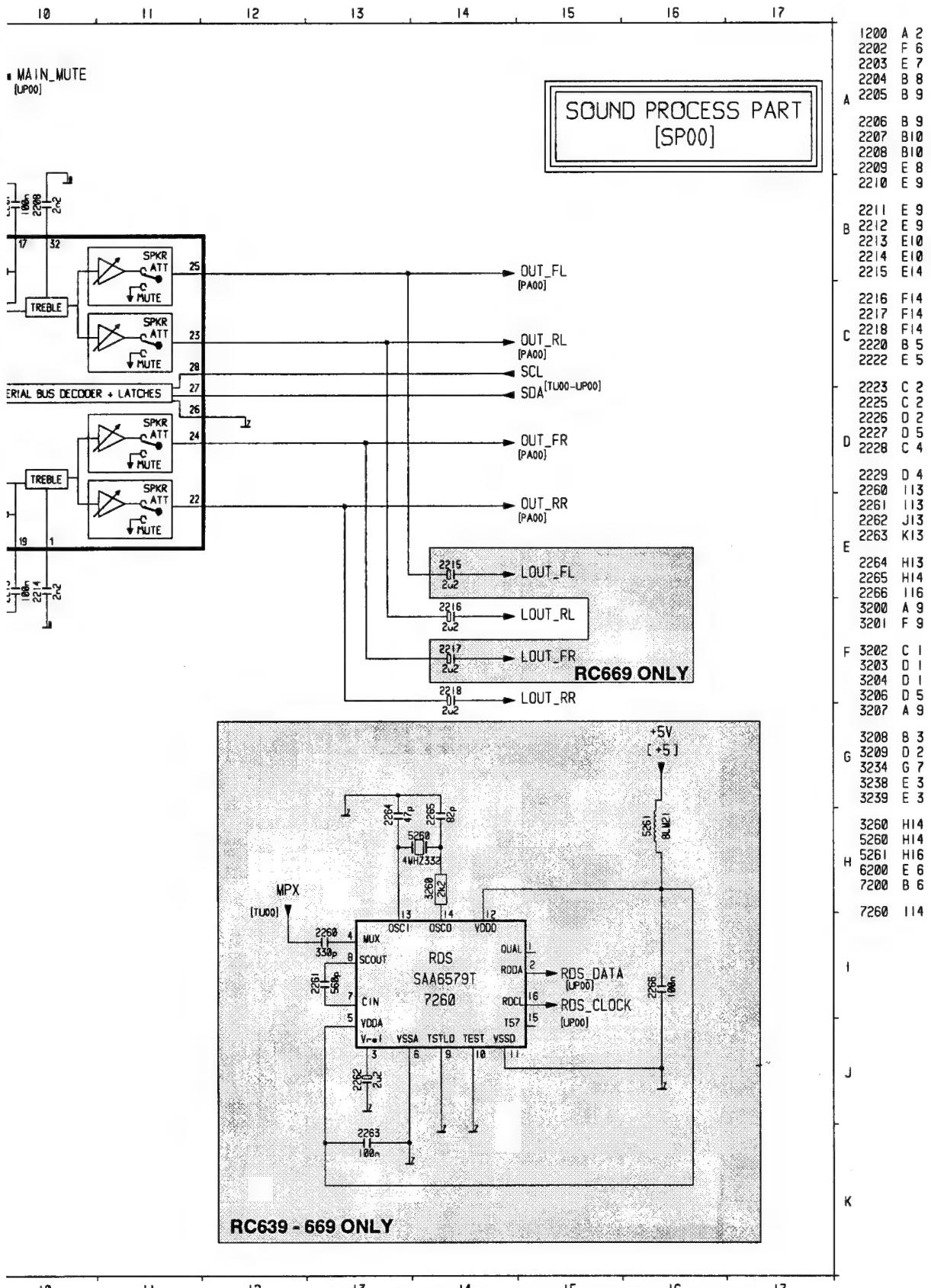
22RC634/00  
22RC639/00/17  
22RC669/00

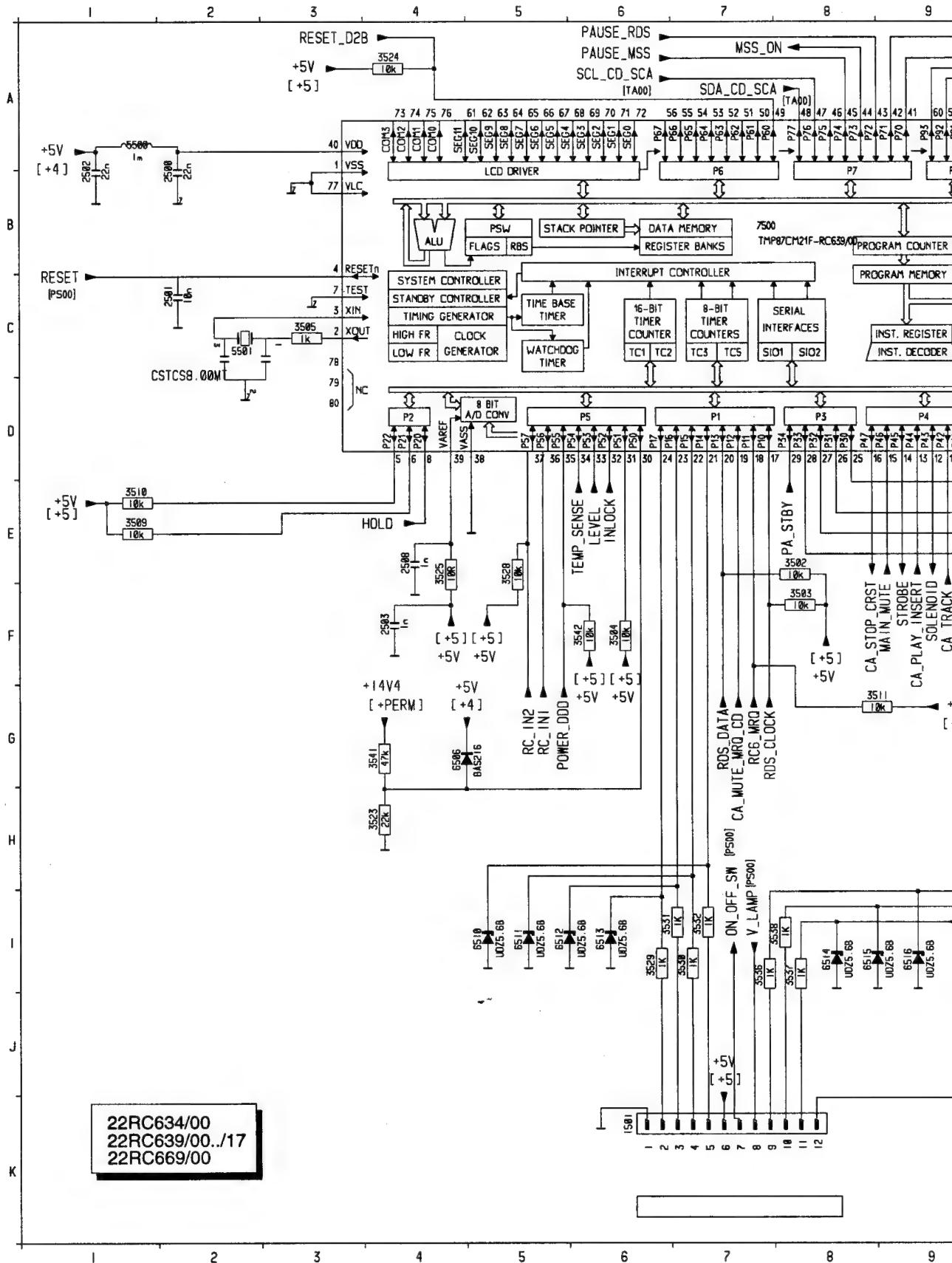


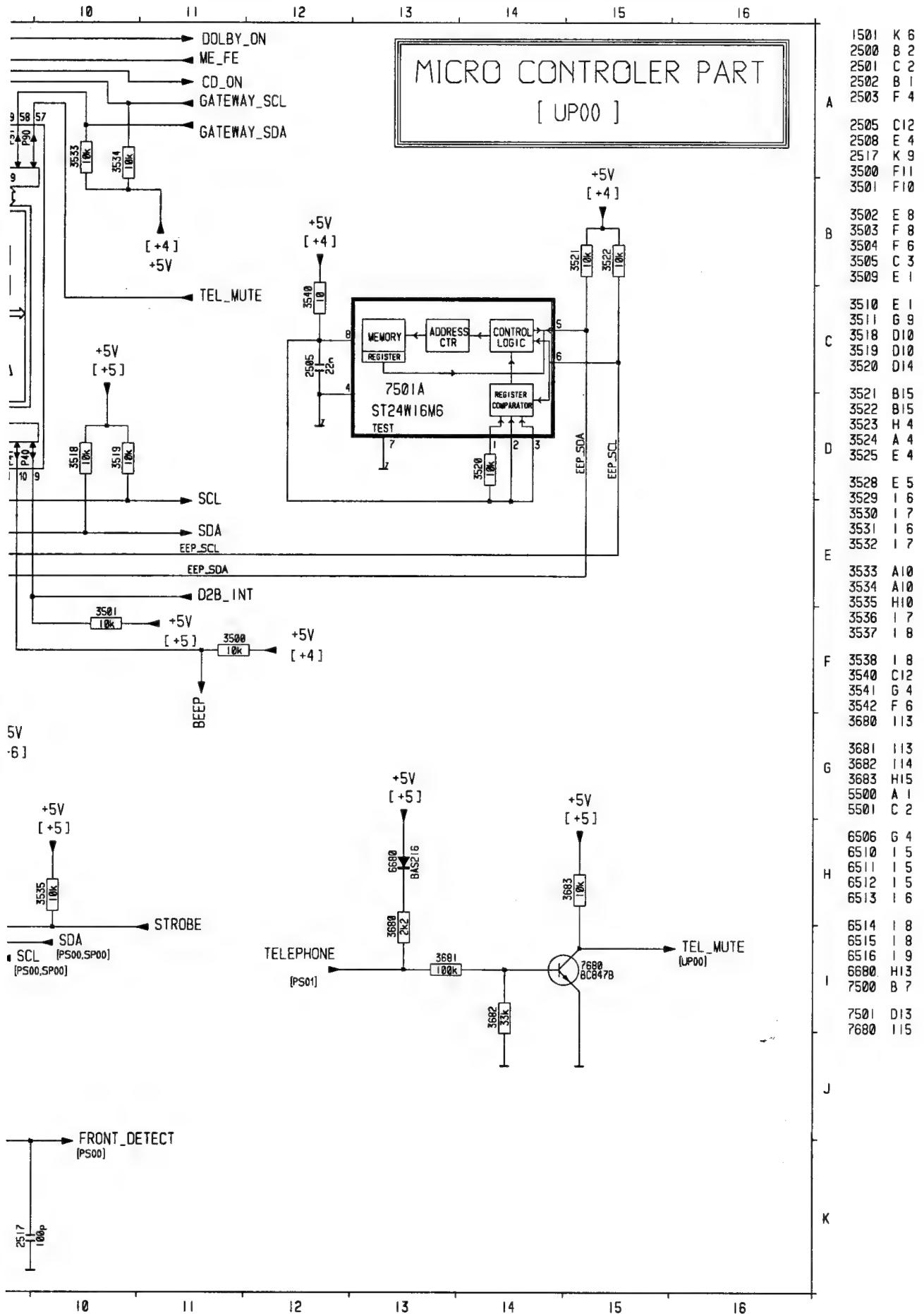
A	2300	K 8
	2301	E 8
	2302	A 6
	2303	H 2
A	2304	I 2
	2305	J 2
	2306	J 2
	2309	A 8
B	2311	J 6
	2313	I 6
B	2314	D 6
	2315	C 6
	2317	G10
C	2319	G 8
	2320	A10
C	2321	E 9
	2322	E10
	2323	E10
D	2324	E11
	2325	K16
D	2326	K15
	2327	K15
E	2328	K14
	2329	B 4
	2333	G 2
E	3300	J 6
	3302	F 3
	3306	A 7
F	3307	A 6
	3308	B 5
	3309	B 5
	3312	I 6
	3313	J 6
F	3316	H 6
	3317	D 9
G	3318	D10
	3319	D10
	3320	D11
	3321	J16
	3322	J15
G	3323	J15
	3324	J14
	3325	D 5
	3326	C 5
	3329	G 3
H	7302	D 8
H	7303	J 8

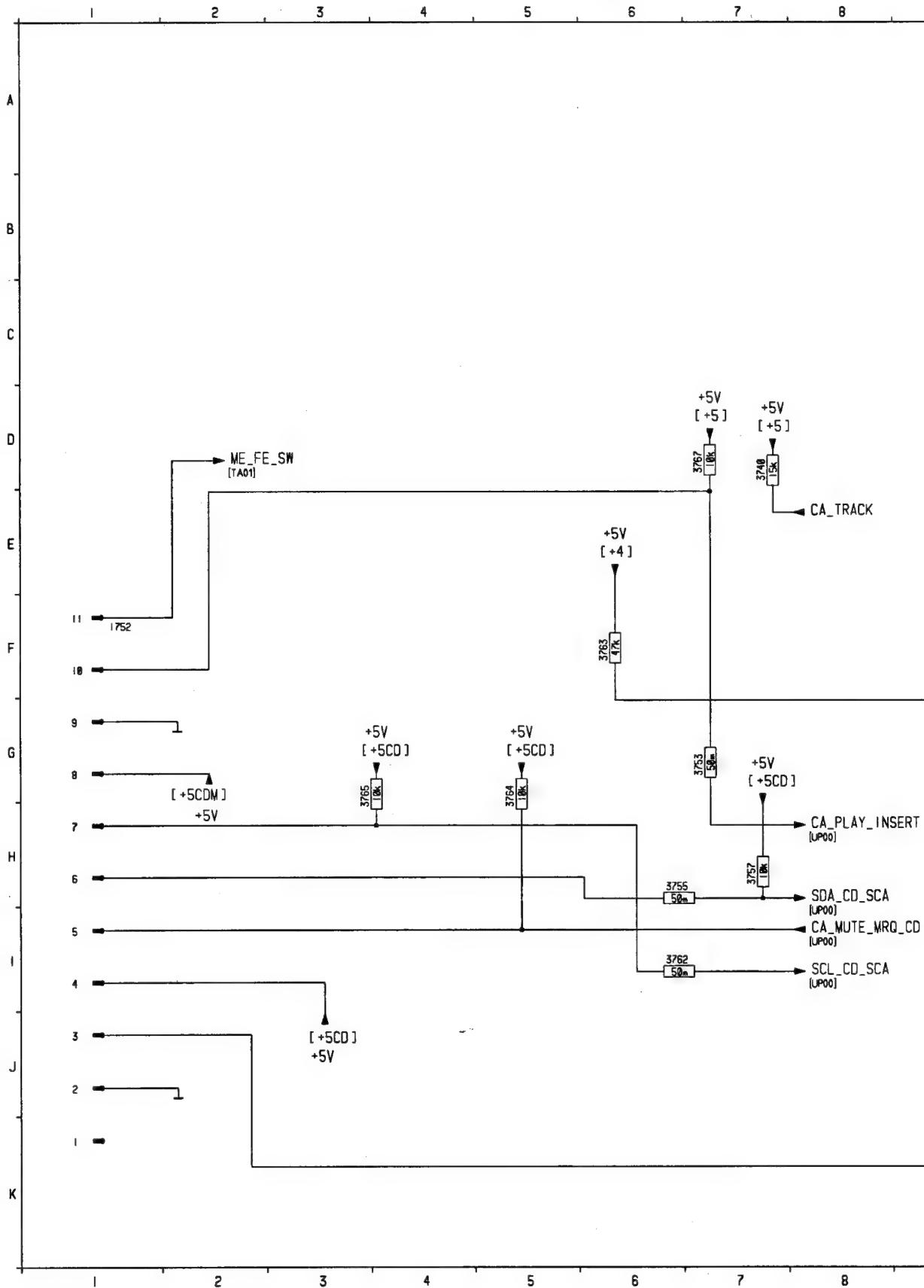












9 10 11 12 13 14 15 16

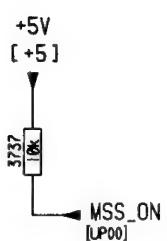
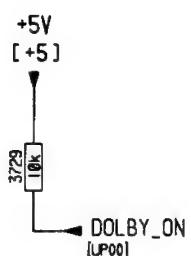
 1752 F 1  
 3729 C12  
 3737 F12  
 3740 D 7  
 3748 H 9

 A 3753 G 7  
 3755 H 6  
 3757 H 7  
 3762 I 6  
 3763 F 6

 B 3764 G 5  
 3765 G 3  
 3767 D 7

TAPE PART  
[ TA00 ]

22RC634/00  
22RC639/00/17  
22RC669/00



CA\_STOP\_CRST  
3748 50n

C

D

E

F

G

H

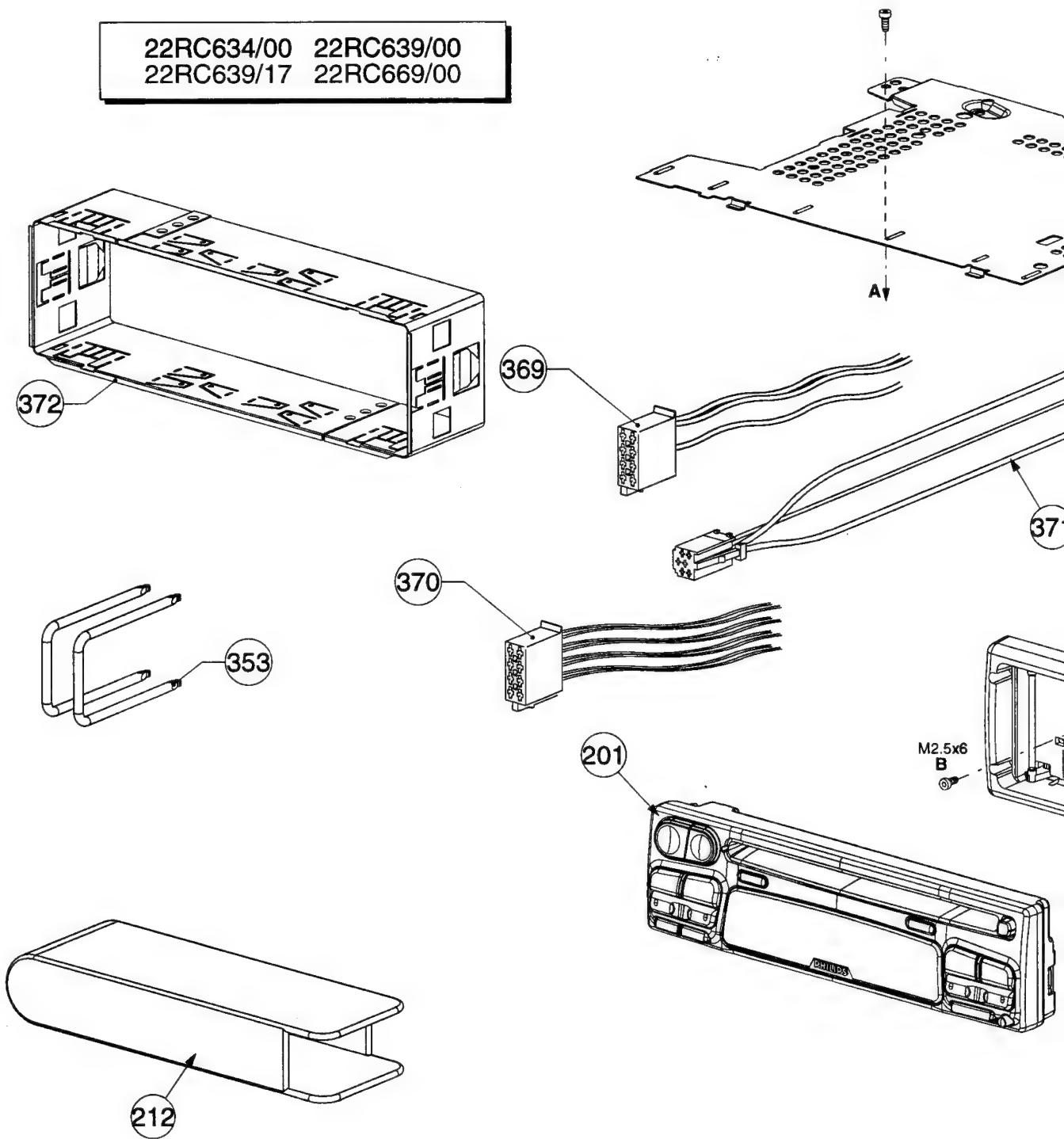
I

J

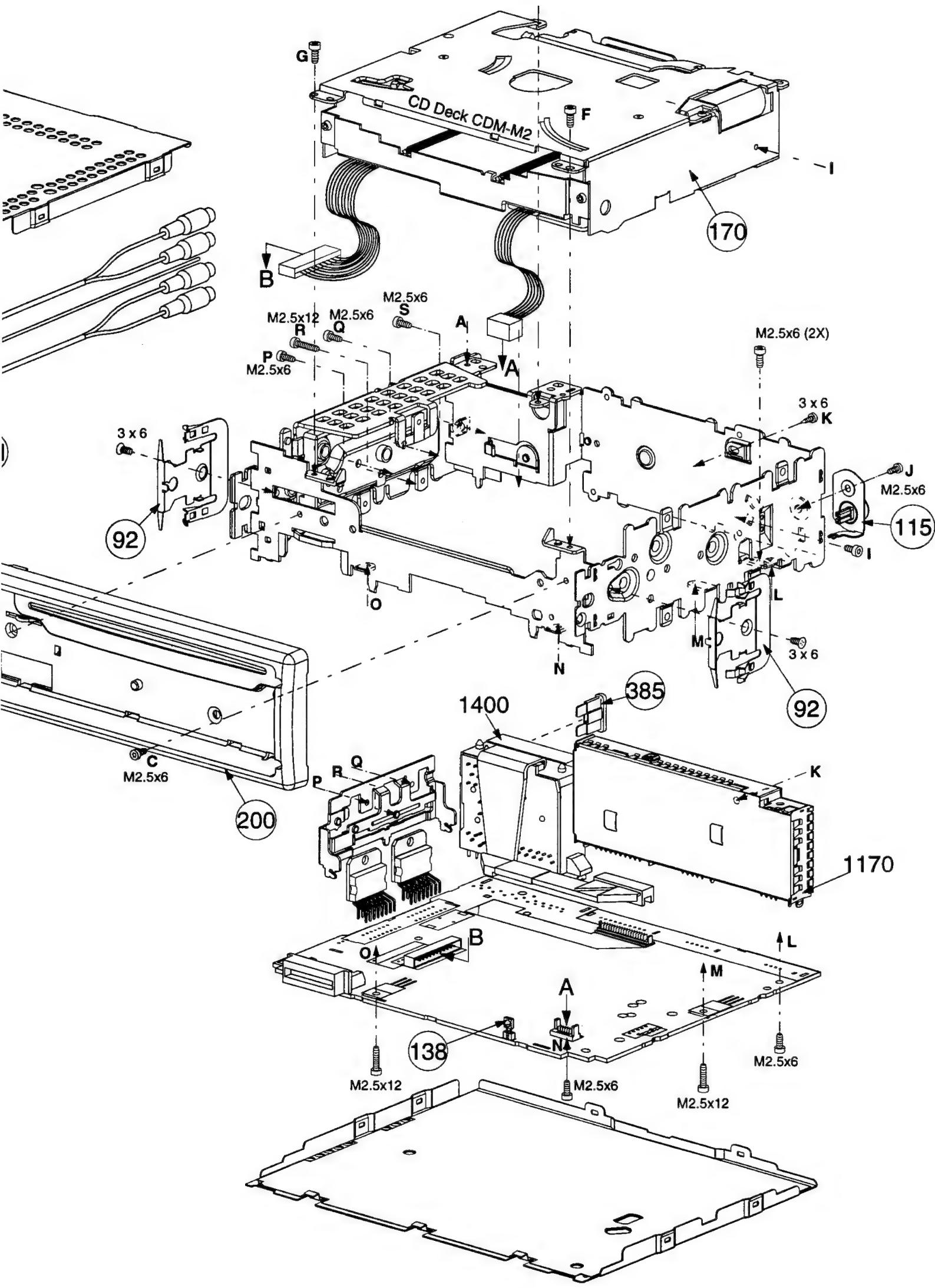
K

9 10 11 12 13 14 15 16

22RC634/00 22RC639/00  
22RC639/17 22RC669/00



92	4822 492 71046	SPRING MOUNTING (X2)	353	4822 404 20437	DEMOUNTING BRACKET (X2)
115	4822 265 10717	CONNECTOR AERIAL ASSY	369	4822 321 11012	CABLE ADAPTOR POWER
138	4822 130 82996	BLINKING LED TLP5620	370	4822 320 11637	CABLE ADAPTOR LOUDSPEAKERS
170	4822 691 10662	DECK ASSY CDM-M2	371	4822 320 11902	CABLE LINE-OUT (ONLY RC634 - 639)
200	4822 459 05109	FIXED FRONT ASSY (RC639 RC669)	371	4822 320 12211	CABLE LINE-OUT (ONLY RC669)
201	4822 459 05116	DETACHABLE UNIT ASSY(RC634/00)	372	4822 443 30463	SLEEVE
201	4822 459 05111	DETACHABLE UNIT ASSY(RC639/00 ..17)	375	4822 736 16445	DIRECTIONS FOR USE (EXEPT RC639/
201	4822 459 05092	DETACHABLE UNIT ASSY(RC669/00)	375	4822 736 16474	DIRECTIONS FOR USE (ONLY RC639/
212	4822 418 10123	DETACHABLE UNIT'S CASE	385	4822 071 21003	FUSE BLADE 10A



Miscellaneous					
1170	4822 210 10741	TUNER IC96 8SV	2319	4822 126 13196	100nF 10% 0805 X7R 25
1400	4822 265 10899	CONNECTOR BLOCK	2320	4822 126 13196	100nF 10% 0805 X7R 25
1440	4822 256 30483	CONNECTOR LAMP	2321	5322 122 34098	10nF10% X7R 63V
1501	4822 265 11286	CONN. 12P	2322	5322 122 34098	10nF10% X7R 63V
			2323	5322 122 34098	10nF10% X7R 63V
			2324	5322 122 34098	10nF 10% X7R 63V
2181	5322 122 32531	100pF 5% NP0 50V	2325	5322 122 34098	10nF 10% X7R 63V
2182	5322 122 32654	22nF10% X7R 63V	2326	5322 122 34098	10nF 10% X7R 63V
2183	5322 122 32654	22nF10% X7R 63V	2327	5322 122 34098	10nF 10% X7R 63V
2185	5322 122 34123	1nF10% X7R 50V	2328	5322 122 34098	10nF 10% X7R 63V
2202	4822 124 23582	220μF 10V	2329	4822 124 23282	1μF 20% 50V
2203	4822 124 41017	10μF 16V	2333	5322 122 34098	10nF 10% X7R 63V
2204	4822 124 23504	2.2μF 20% 50V	2401	5322 122 34098	10nF 10% X7R 63V
2205	4822 126 13343	47nF10% X7R 25V	2402	4822 124 11952	100μF 20% 16V
2206	4822 126 13196	100nF 10% 0805 X7R 25V	2403	4822 126 13196	100nF 10% 0805 X7R 25V
2207	4822 126 13196	100nF 10% 0805 X7R 25V	2404	4822 124 22646	47μF 20% 16V
2208	4822 122 33127	2,2nF10% X7R 63V	2405	4822 126 13196	100nF 10% 0805 X7R 25V
2209	4822 124 23504	2.2μF 20% 50V	2406	4822 124 80769	2200μF 20% 16V
2210	4822 126 13343	47nF10% X7R 25V	2407	4822 124 80769	2200μF 20% 16V
2211	5322 126 10223	4,7nF10% X7R 63V	2409	4822 126 13849	220nF 10% 16V
2212	4822 126 13196	100nF 10% 0805 X7R 25V	2410	4822 124 22646	47μF 20% 16V
2213	4822 126 13196	100nF 10% 0805 X7R 25V	2411	4822 126 13196	100nF 10% 0805 X7R 25V
2214	4822 122 33127	2,2nF10% X7R 63V	2412	4822 126 13196	100nF 10% 0805 X7R 25V
2215	4822 124 23504	2.2μF 20% 50V	2413	4822 126 13196	100nF 10% 0805 X7R 25V
2216	4822 124 23504	2.2μF 20% 50V	2415	5322 122 32654	22nF 10% X7R 63V
2217	4822 124 23504	2.2μF 20% 50V	2416	4822 124 23282	1μF 20% 50V
2218	4822 124 23504	2.2μF 20% 50V	2417	4822 124 23279	22μF 20% 16V
2220	4822 126 13196	100nF 10% 0805 X7R 25V	2418	4822 124 23279	22μF 20% 16V
2222	4822 126 13196	100nF 10% 0805 X7R 25V	2419	4822 124 41017	10μF 16V
2223	4822 124 23504	2.2μF 20% 50V	2420	4822 124 23279	22μF 20% 16V
2225	4822 124 23504	2.2μF 20% 50V	2421	4822 124 11952	100μF 20% 16V
2226	4822 124 23504	2.2μF 20% 50V	2422	5322 122 32654	22nF 10% X7R 63V
2227	5322 122 34098	10nF10% X7R 63V	2423	5322 122 34098	10nF 10% X7R 63V
2228	4822 124 23282	1μF 20% 50V	2425	5322 122 34098	10nF 10% X7R 63V
2229	4822 124 23282	1μF 20% 50V	2427	4822 126 13196	100nF 10% 0805 X7R 25V
2230	4822 126 13196	100nF 10% 0805 X7R 25V	2428	4822 126 13849	220nF 10% 16V
2231	4822 124 23504	2.2μF 20% 50V	2470	5322 122 32531	100pF 5%NP0 50V
2232	5322 122 34123	1nF10% X7R 50V	2471	5322 122 32531	100pF 5%NP0 50V
2234	4822 124 23504	2.2μF 20% 50V	2473	5322 122 34123	1nF10%X7R 50V
2235	4822 126 13343	47nF10% X7R 25V	2476	5322 122 34098	10nF10%X7R 63V
2260	5322 122 31863	330pF 5% NP0 50V	2477	4822 126 13343	47nF10% X7R 25V
2261	5322 116 80853	560pF 5% NP0 63V	2500	5322 122 32654	22nF10%X7R 63V
2262	4822 124 23504	2.2μF 20% 50V	2501	5322 122 34098	10nF10%X7R 63V
2263	4822 126 13196	100nF 10% 0805 X7R 25V	2502	5322 122 32654	22nF10%X7R 63V
2264	4822 126 13692	47pF 1% NP0 63V	2503	5322 122 34123	1nF10%X7R 50V
2265	4822 126 13695	82pF 1% NP0 63V	2505	5322 122 32654	22nF10%X7R 63V
2266	4822 126 13196	100nF 10% 0805 X7R 25V	2508	5322 122 34123	1nF10%X7R 50V
2300	4822 124 22646	47μF 20% 16V	2517	5322 122 32531	100pF 5%NP0 50V
2301	4822 124 22646	47μF 20% 16V			
2302	4822 124 41017	10μF 16V			
2303	4822 124 23282	1μF 20% 50V	3175	4822 051 20102	1KΩ 5% 0,1W
2304	4822 124 23282	1μF 20% 50V	3178	4822 051 20008	0Ω JUMP. (0805)
2305	4822 124 23282	1μF 20% 50V	3179	4822 051 20008	0Ω JUMP. (0805)
2306	4822 124 23282	1μF 20% 50V	3181	4822 117 10833	10KΩ 1% 0,1W^
2309	4822 126 13196	100nF 10% 0805 X7R 25V	3182	4822 051 20562	5K6 5% 0,1W 0805
2311	5322 122 32268	470pF 10% 50V	3183	4822 051 20273	27KΩ 5% 0,1W
2313	5322 122 32268	470pF 10% 50V	3184	4822 051 20008	0Ω JUMP. (0805)
2314	5322 122 32268	470pF 10% 50V	3200	4822 051 20472	4K7 5% 0,1W
2315	5322 122 32268	470pF 10% 50V	3201	4822 051 20472	4K7 5% 0,1W
2317	4822 126 13196	100nF 10% 0805 X7R 25	3202	4822 051 20008	0Ω JUMP. (0805)

3203	4822 051 20008	0Ω JUMP. (0805)	3446	4822 117 10834	47KΩ 1% 0,1W
3204	4822 051 20008	0Ω JUMP. (0805)	3447	4822 051 20104	100KΩ 5% 0,1W
3206	4822 051 20334	330KΩ 5% 0,1W	3448	4822 117 11504	270Ω 1% 0,1W
3207	4822 117 10833	10KΩ 1% 0,1W	3449	4822 117 10834	47KΩ 1% 0,1W
3208	4822 117 10833	10KΩ 1% 0,1W	3450	4822 051 20105	1MΩ 5% 0,1W
3209	4822 051 20008	0Ω JUMP. (0805)	3451	4822 051 20105	1MΩ 5% 0,1W
3233	4822 051 20334	330KΩ 5% 0,1W	3452	4822 051 20105	1MΩ 5% 0,1W
3234	4822 117 10833	10KΩ 1% 0,1W	3453	4822 117 10834	47KΩ 1% 0,1W
3235	4822 051 20223	22KΩ 5% 0,1W	3460	4822 051 20008	0Ω JUMP. (0805)
3236	4822 051 20683	68KΩ 5% 0,1W	3471	4822 116 40267	3Ω3 25% 20V
3237	4822 051 20104	100KΩ 5% 0,1W	3472	4822 051 20101	100Ω 5% 0,1W
3238	4822 051 20472	4K7 5% 0,1W	3473	4822 051 20101	100Ω 5% 0,1W
3239	4822 051 20472	4K7 5% 0,1W	3475	4822 051 20008	0Ω JUMP. (0805)
3260	4822 117 11449	2K2 1% 0,1W	3476	4822 051 20008	0Ω JUMP. (0805)
3300	4822 117 10833	10KΩ 1% 0,1W	3481	4822 051 20331	330Ω 5% 0,1W
3302	4822 051 20472	4K7 5% 0,1W	3483	4822 051 20101	100Ω 5% 0,1W
3306	4822 051 20102	1KΩ 5% 0,1W	3484	4822 051 20101	100Ω 5% 0,1W
3307	4822 117 10833	10KΩ 1% 0,1W	3485	4822 051 20102	1KΩ 5% 0,1W
3308	4822 117 10833	10KΩ 1% 0,1W	3489	4822 051 20008	0Ω JUMP. (0805)
3309	4822 051 20333	33KΩ 5% 0,1W	3494	4822 117 11449	2K2 1% 0,1W
3312	4822 051 20008	0Ω JUMP. (0805)	3500	4822 117 10833	10KΩ 1% 0,1W
3313	4822 051 20008	0Ω JUMP. (0805)	3501	4822 117 10833	10KΩ 1% 0,1W
3316	4822 117 10833	10KΩ 1% 0,1W	3502	4822 117 10833	10KΩ 1% 0,1W
3317	4822 051 20109	10Ω 5% 0,1W	3503	4822 117 10833	10KΩ 1% 0,1W
3318	4822 051 20109	10Ω 5% 0,1W	3504	4822 117 10833	10KΩ 1% 0,1W
3319	4822 051 20109	10Ω 5% 0,1W	3505	4822 051 20102	1KΩ 5% 0,1W
3320	4822 051 20109	10Ω 5% 0,1W	3509	4822 117 10833	10KΩ 1% 0,1W
3321	4822 051 20109	10Ω 5% 0,1W	3510	4822 117 10833	10KΩ 1% 0,1W
3322	4822 051 20109	10Ω 5% 0,1W	3511	4822 117 10833	10KΩ 1% 0,1W
3323	4822 051 20109	10Ω 5% 0,1W	3518	4822 117 10833	10KΩ 1% 0,1W
3324	4822 051 20109	10Ω 5% 0,1W	3519	4822 117 10833	10KΩ 1% 0,1W
3325	4822 117 10833	10KΩ 1% 0,1W	3520	4822 117 10833	10KΩ 1% 0,1W
3326	4822 117 10833	10KΩ 1% 0,1W	3521	4822 117 10833	10KΩ 1% 0,1W
3329	4822 116 10062	470Ω 50% 16V PTC 0805	3522	4822 117 10833	10KΩ 1% 0,1W
3398	4822 051 20008	0Ω JUMP. (0805)	3523	4822 051 20223	22KΩ 5% 0,1W
3409	4822 051 20104	100KΩ 5% 0,1W	3524	4822 117 10833	10KΩ 1% 0,1W
3410	4822 051 20333	33KΩ 5% 0,1W	3525	4822 051 20109	10Ω 5% 0,1W
3411	4822 051 20393	39KΩ 5% 0,1W^	3528	4822 117 10833	10KΩ 1% 0,1W
3412	4822 051 20229	22Ω 5% 0,1W	3529	4822 051 20102	1KΩ 5% 0,1W
3413	4822 117 10834	47KΩ 1% 0,1W	3530	4822 051 20102	1KΩ 5% 0,1W
3414	4822 117 10834	47KΩ 1% 0,1W	3531	4822 051 20102	1KΩ 5% 0,1W
3416	4822 117 10834	47KΩ 1% 0,1W	3532	4822 051 20102	1KΩ 5% 0,1W
3417	4822 051 20472	4K7 5% 0,1W	3533	4822 117 10833	10KΩ 1% 0,1W
3420	4822 051 20681	680Ω 5% 0,1W	3534	4822 117 10833	10KΩ 1% 0,1W
3421	4822 117 11449	2K2 1% 0,1W	3535	4822 117 10833	10KΩ 1% 0,1W
3422	4822 051 20224	220KΩ 5% 0,1W	3536	4822 051 20102	1KΩ 5% 0,1W
3423	4822 051 20474	470KΩ 5% 0,1W	3537	4822 051 20102	1KΩ 5% 0,1W
3424	4822 051 20184	180KΩ 5% 0,1W	3538	4822 051 20102	1KΩ 5% 0,1W
3425	4822 051 20224	220KΩ 5% 0,1W	3540	4822 051 20109	10Ω 5% 0,1W
3426	4822 051 20392	3K9 5% 0,1W	3541	4822 117 10834	47KΩ 1% 0,1W
3427	4822 051 20223	22KΩ 5% 0,1W	3542	4822 117 10833	10KΩ 1% 0,1W
3428	4822 051 20229	22Ω 5% 0,1W	3680	4822 117 11449	2K2 1% 0,1W
3429	4822 117 10833	10KΩ 1% 0,1W	3681	4822 051 20104	100KΩ 5% 0,1W
3431	4822 051 20104	100KΩ 5% 0,1W	3682	4822 051 20333	33KΩ 5% 0,1W
3432	4822 117 10833	10KΩ 1% 0,1W	3683	4822 117 10833	10KΩ 1% 0,1W
3435	4822 051 20472	4K7 5% 0,1W	3729	4822 117 10833	10KΩ 1% 0,1W
3436	4822 051 20472	4K7 5% 0,1W	3737	4822 117 10833	10KΩ 1% 0,1W
3439	4822 117 11449	2K2 1% 0,1W	3740	4822 051 20153	15KΩ 5% 0,1W
3440	4822 117 10834	47KΩ 1% 0,1W	3748	4822 051 20008	0Ω JUMP. (0805)
3445	4822 051 20008	0Ω JUMP. (0805)	3753	4822 051 20008	0Ω JUMP. (0805)

3755	4822 051 20008	0Ω JUMP. (0805)	7415	4822 130 60511 BC847B
3757	4822 117 10833	10KΩ 1% 0,1W	7416	4822 130 60511 BC847B
3762	4822 051 20008	0Ω JUMP. (0805)	7417	4822 130 10839 2SD2061
3763	4822 117 10834	47KΩ 1% 0,1W	7418	4822 130 10839 2SD2061
3764	4822 117 10833	10KΩ 1% 0,1W	7420	5322 130 60508 BC857
3765	4822 117 10833	10KΩ 1% 0,1W	7500	4822 209 16898 TMP87CM21F
3767	4822 117 10833	10KΩ 1% 0,1W	7501	4822 900 11262 ST24W16 - RC639/00../17
3800	4822 051 20229	22Ω 5% 0,1W	7501	4822 900 11268 ST24W16 - RC634/00
3801	4822 051 20229	22Ω 5% 0,1W	7501	4822 900 11269 ST24W16 - RC669/00
			7680	4822 130 60511 BC847B
5172	4822 157 10975	120µH 10%		FRONT PARTS
5173	4822 157 71184	10µH 10%		
5260	4822 242 80259	LN-G38-311 (4,332MHZ)	1900	4822 276 13999 SWITCH
5261	4822 157 71206	BLM21A601SPT	1901	4822 276 13999 SWITCH
5420	4822 157 70935	COIL ASSY 97µH 10A	1902	4822 276 13999 SWITCH
5421	4822 158 10471	0,22µH 20% 4X9,8	1903	4822 276 13999 SWITCH
5500	4822 157 11207	EL0405RA-102K-3	1904	4822 276 13999 SWITCH
5501	4822 242 10753	CSTCS8,00MT-TC	1905	4822 276 13999 SWITCH
			1906	4822 276 13999 SWITCH
6200	4822 130 83757	BAS216	1907	4822 276 13999 SWITCH
6402	4822 130 83757	BAS216	1908	4822 276 13999 SWITCH
6403	4822 130 83757	BAS216	1909	4822 276 13999 SWITCH
6404	4822 130 10488	S3G	1910	4822 276 13999 SWITCH
6407	4822 130 10877	UDZ9.1B	1911	4822 276 13999 SWITCH
6408	4822 130 10185	UDZ5.6B	1912	4822 276 13999 SWITCH
6409	4822 130 10655	1SR154-400	1915	4822 276 13999 SWITCH
6410	4822 130 10655	1SR154-400	1916	4822 276 13999 SWITCH
6412	4822 130 83757	BAS216	1917	4822 276 13999 SWITCH
6413	4822 130 83757	BAS216	1940	4822 134 10014 115MA 5V ORANGE
6473	4822 130 10185	UDZ5.6B	1941	4822 134 10014 115MA 5V ORANGE
6474	4822 130 10185	UDZ5.6B	1942	4822 134 10015 115MA 5V GREEN
6478	4822 130 10655	1SR154-400	1943	4822 134 10015 115MA 5V GREEN
6506	4822 130 83757	BAS216		
6510	4822 130 10185	UDZ5.6B	2900	5322 122 32654 22nF 10% X7R 63V
6511	4822 130 10185	UDZ5.6B	2901	5322 122 32654 22nF 10% X7R 63V
6512	4822 130 10185	UDZ5.6B	2902	5322 122 32654 22nF 10% X7R 63V
6513	4822 130 10185	UDZ5.6B	2903	5322 122 32654 22nF 10% X7R 63V
6514	4822 130 10185	UDZ5.6B		
6515	4822 130 10185	UDZ5.6B	3900	4822 051 20122 1K20 5% 0,1W
6516	4822 130 10185	UDZ5.6B	3901	4822 051 20101 100Ω 5% 0,1W
6680	4822 130 83757	BAS216	3902	4822 051 20122 1K20 5% 0,1W
			3903	4822 117 11503 220Ω 1% 0.1W
7200	4822 209 12723	TDA7342	3904	4822 051 20561 560Ω 5% 0,1W
7230	4822 209 83159	LA2000 (SANYO)	3905	4822 051 20101 100Ω 5% 0,1W
7260	4822 209 31981	SAA6579T	3906	4822 051 20223 22KΩ 5% 0,1W
7302	4822 209 33629	TDA7375	3907	4822 051 20223 22KΩ 5% 0,1W
7303	4822 209 33629	TDA7375	3908	4822 051 20223 22KΩ 5% 0,1W
7402	4822 209 15418	L4949ED	3909	4822 051 20223 22KΩ 5% 0,1W
7403	4822 130 60511	BC847B	3910	4822 117 10833 10KΩ 1% 0,1W
7404	5322 130 60508	BC857B	3911	4822 117 11503 220Ω 1% 0.1W
7405	4822 130 40995	BD438	3912	4822 117 11503 220Ω 1% 0.1W
7407	4822 130 60511	BC847B	3913	4822 117 11503 220Ω 1% 0.1W
7409	5322 209 14477	HEF4013BT	3921	4822 117 11503 220Ω 1% 0.1W
7410	5322 130 60508	BC857B	3923	4822 117 11503 220Ω 1% 0.1W
7411	4822 130 40995	BD438	3925	4822 117 11503 220Ω 1% 0.1W
7412	4822 130 60511	BC847B	3927	4822 051 20331 330Ω 5% 0,1W
7414	5322 130 60508	BC857B	3928	4822 051 20331 330Ω 5% 0,1W
			3929	4822 117 11503 220Ω 1% 0.1W

			Technician's Remarks
3931	4822 117 11504	270Ω 1% 0.1W	
3933	4822 117 11504	270Ω 1% 0.1W	
3942	4822 117 11449	2K2 1% 0,1W	
3943	4822 117 11449	2K2 1% 0,1W	
3946	4822 117 10834	47K 1% 0,1W	
3947	4822 117 10833	10KΩ 1% 0,1W	
3948	4822 051 20008	0Ω JUMP. (0805)	
3950	4822 117 10353	150Ω 1% 0,1W	
3951	4822 117 10353	150Ω 1% 0,1W	
3952	4822 117 10353	150Ω 1% 0,1W	
3953	4822 117 10353	150Ω 1% 0,1W	
3954	4822 117 10353	150Ω 1% 0,1W	
3961	4822 117 11503	220Ω 1% 0,1W	
3962	4822 117 11503	220Ω 1% 0,1W	
3963	4822 117 11503	220Ω 1% 0,1W	
3964	4822 117 11503	220Ω 1% 0,1W	
3965	4822 117 11504	220Ω 1% 0,1W	
3966	4822 117 11504	220Ω 1% 0,1W	
►►			
6900	4822 130 10185	UDZ5.6B	
6901	4822 130 10185	UDZ5.6B	
6902	4822 130 10185	UDZ5.6B	
6903	4822 130 83757	BAS216	
6904	4822 130 83757	BAS216	
6905	4822 130 83757	BAS216	
6906	4822 130 83757	BAS216	
6907	4822 130 83757	BAS216	
6910	4822 130 10186	LYT670-JK-E9231	
6912	4822 130 10186	LYT670-JK-E923	
6914	4822 130 10186	LYT670-JK-E923	
6916	4822 130 10186	LYT670-JK-E923	
6918	4822 130 10186	LYT670-JK-E923	
6920	4822 130 10186	LYT670-JK-E923	
6922	4822 130 10186	LYT670-JK-E923	
6924	4822 130 10186	LYT670-JK-E923	
6926	4822 130 10186	LYT670-JK-E923	
6928	4822 130 11175	LST670-JK	
6934	4822 130 10186	LYT670-JK-E9231	
6936	4822 130 10186	LYT670-JK-E9231	
6938	4822 130 10186	LYT670-JK-E9231	
6942	4822 130 10186	LYT670-JK-E9231	
6944	4822 130 10186	LYT670-JK-E9231	
6946	4822 130 10186	LYT670-JK-E9231	
6948	4822 130 10186	LYT670-JK-E9231	
7900	5322 209 11306	HEF4094BT	
7901	4822 209 15482	PCF8576CH/F1	
7902	4822 130 42615	BC817-40	
7903	4822 130 42615	BC817-40	
7906	5322 130 60508	BC857B	
7907	4822 130 60511	BC847B	